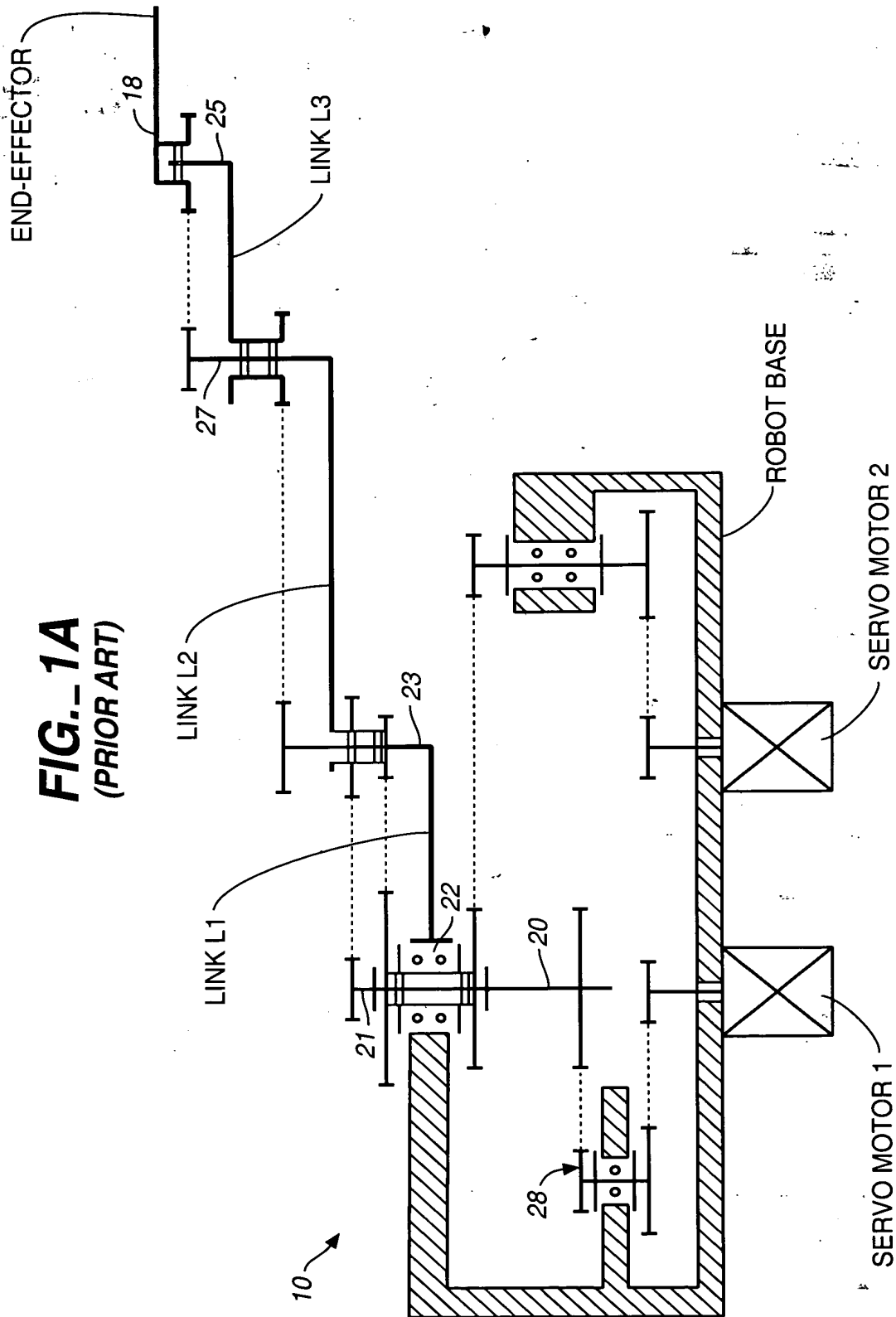


APPROVED	O.G. FIG. 06118	
BY	CLASS	SUBCLASS
DRAFTSMAN	318	588.11

6121743

1 / 53

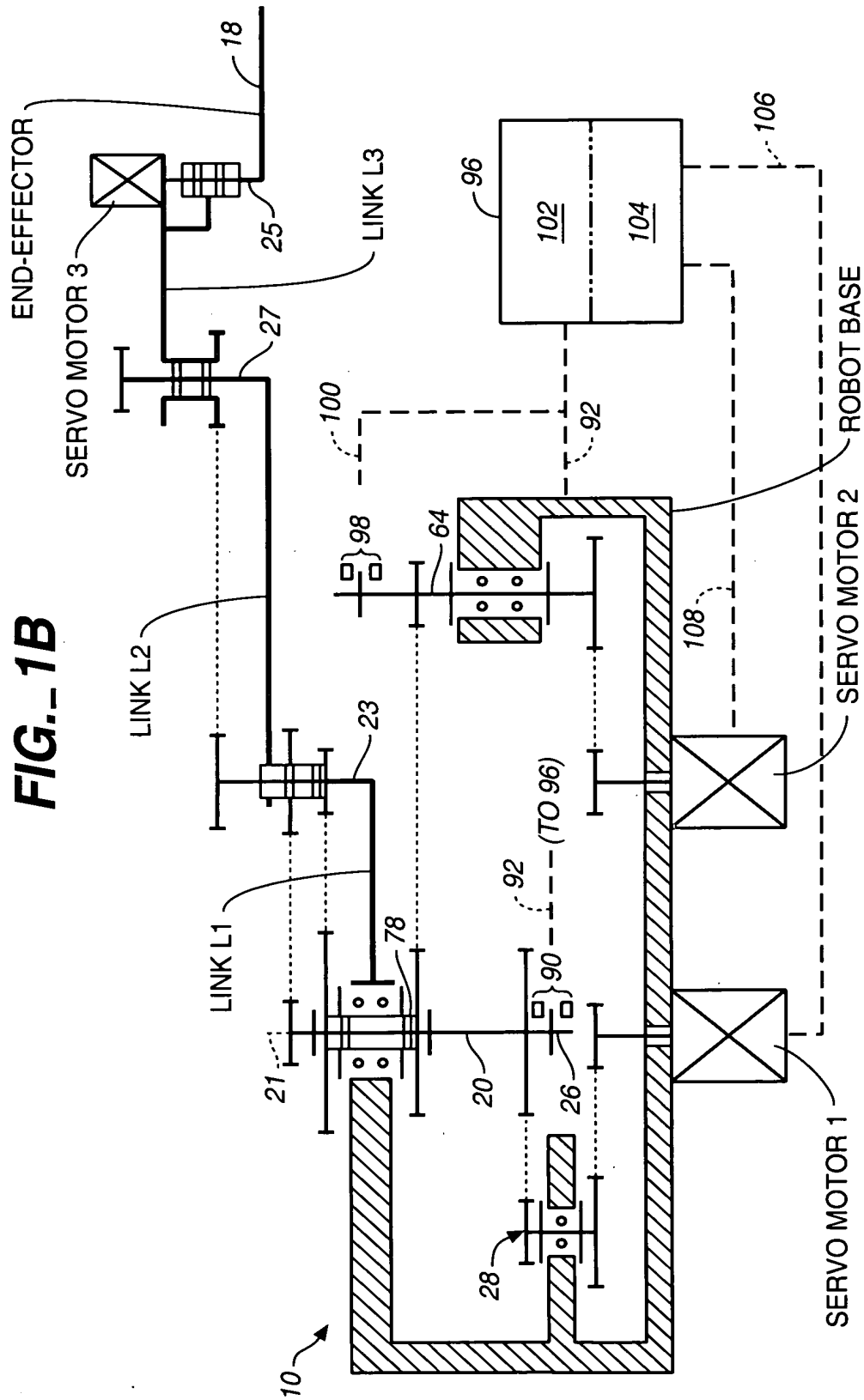
09/129,110



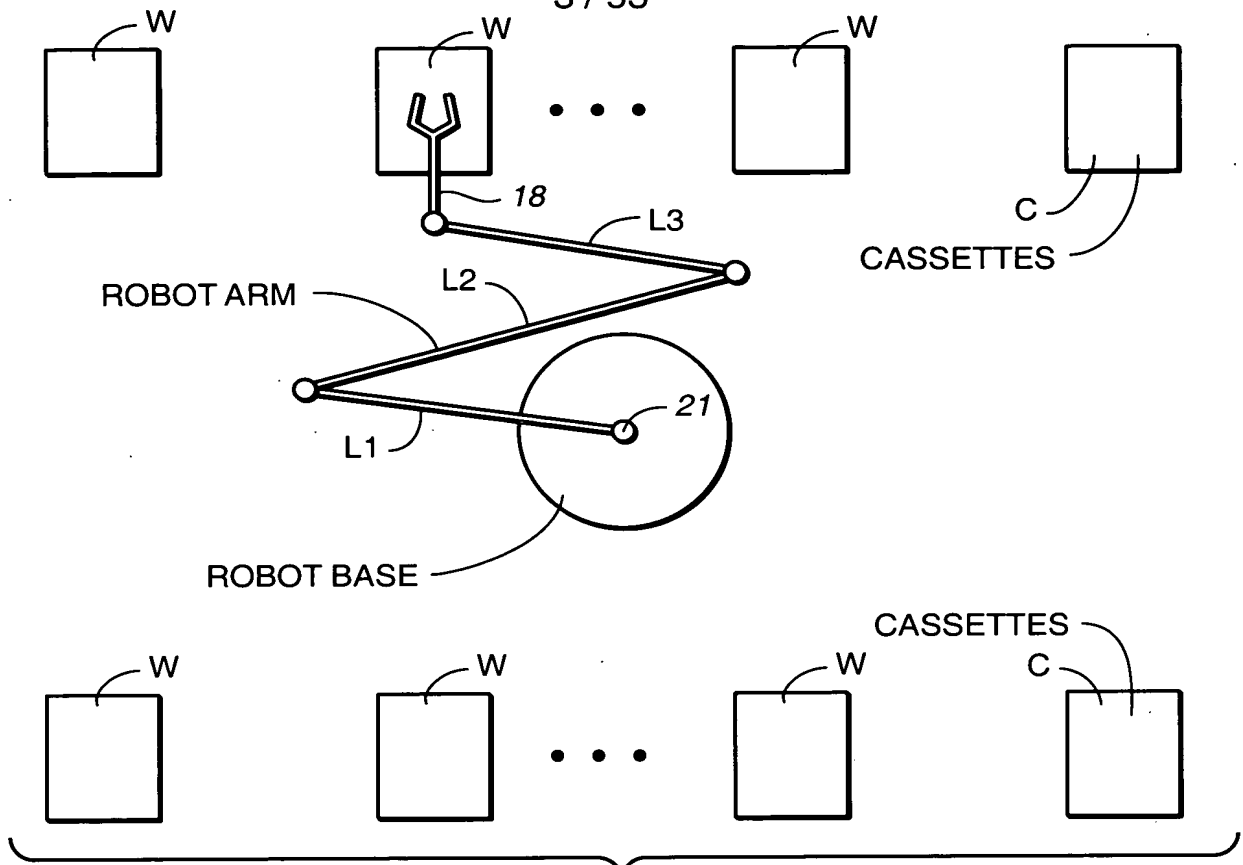
*6121743*

APPROVED	O.G. FIG. 1B
BY	CLASS
DRAFTSMAN	SUBCLASS
	312 528.11

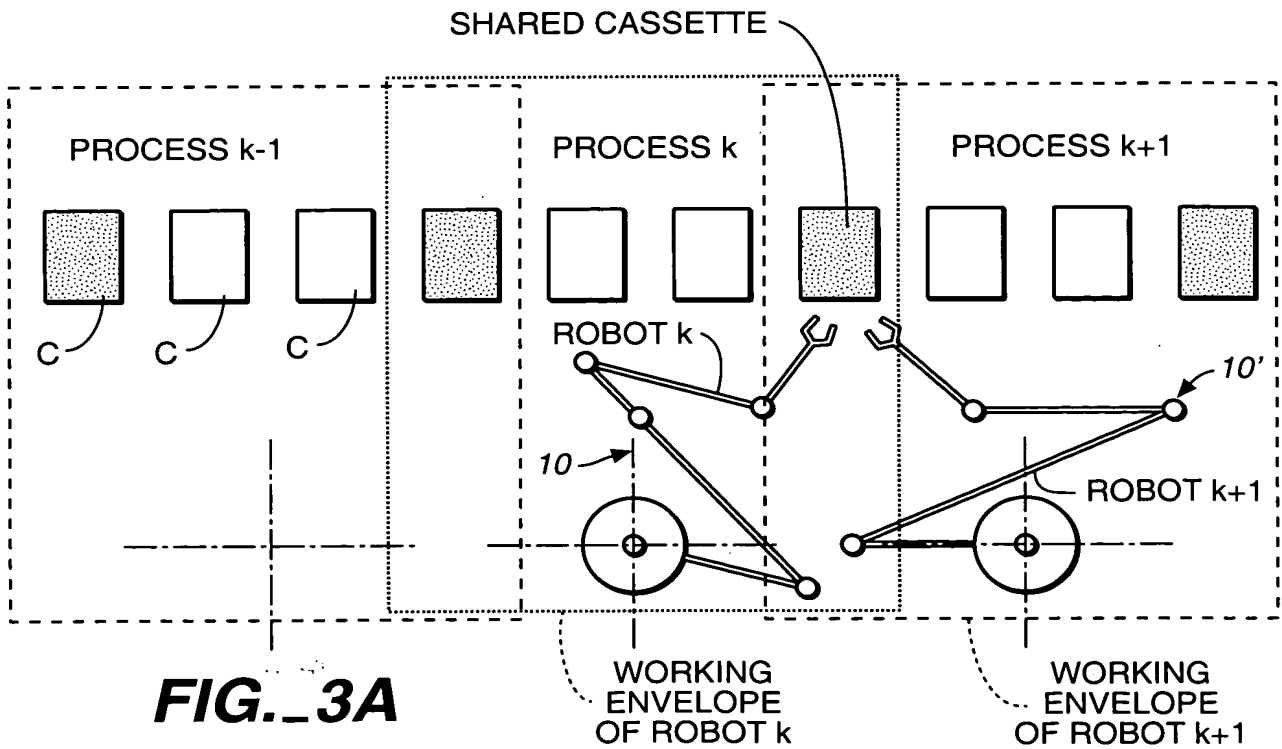
FIG. 1B



3 / 53

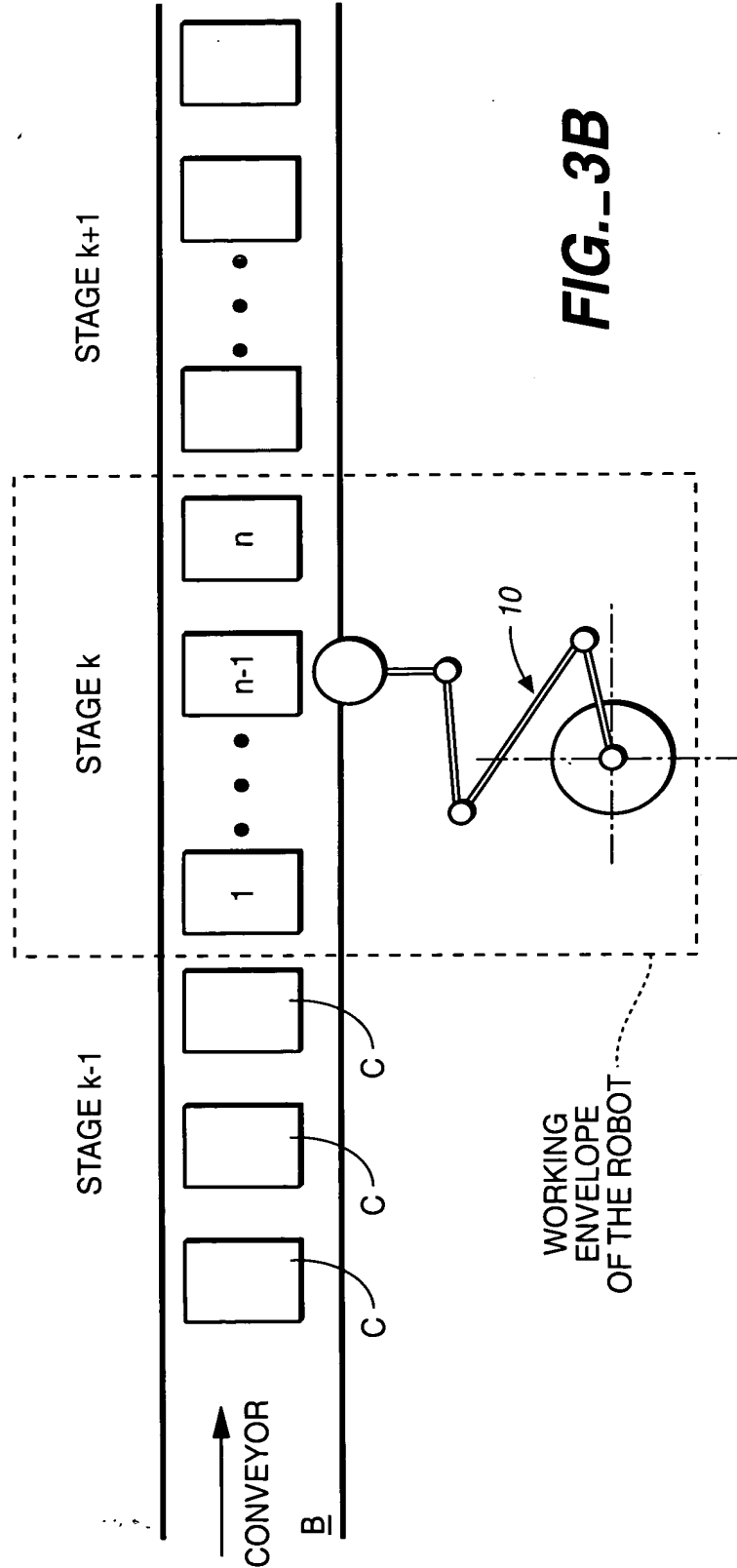


**FIG.\_2**



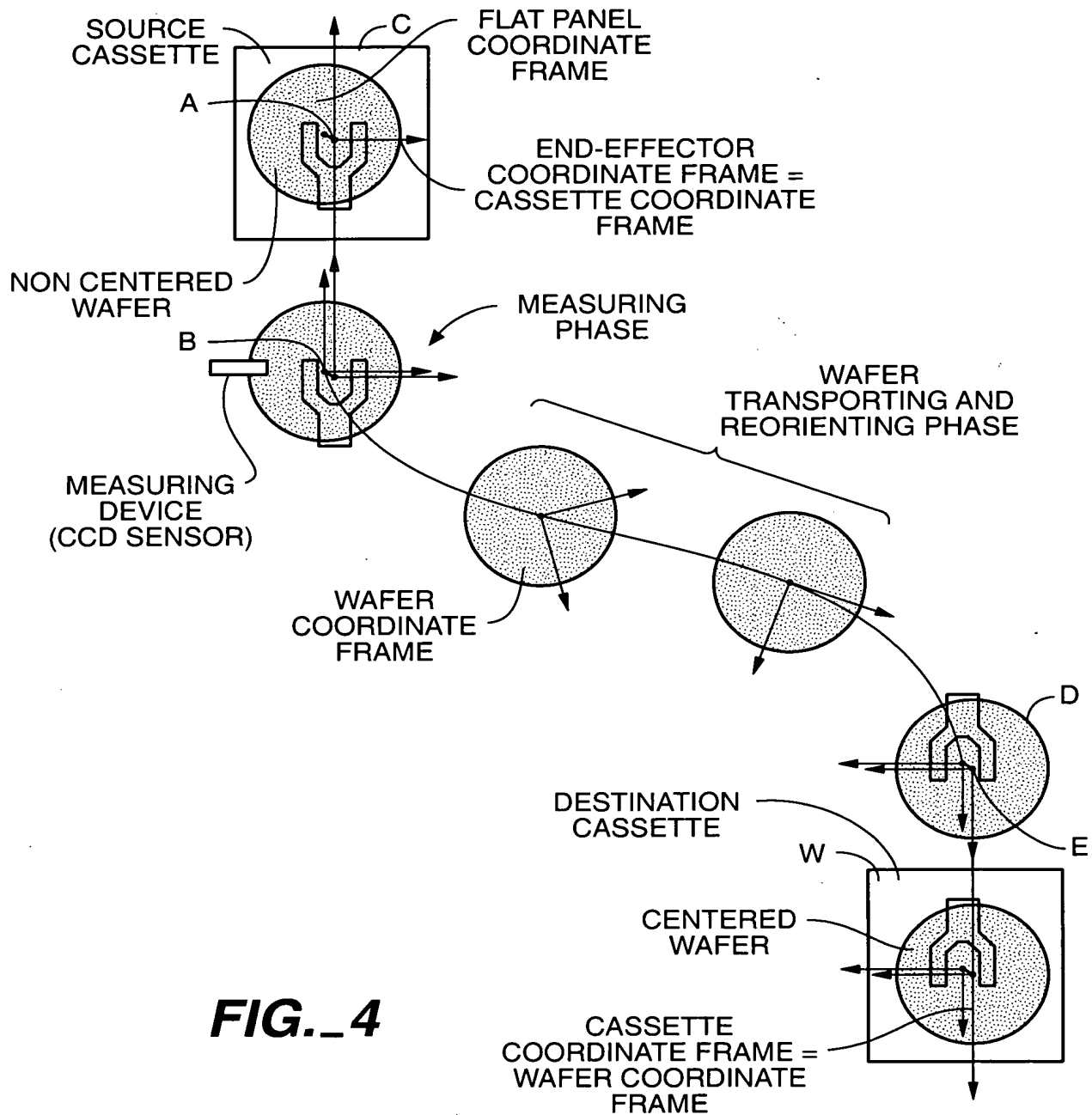
**FIG.\_3A**

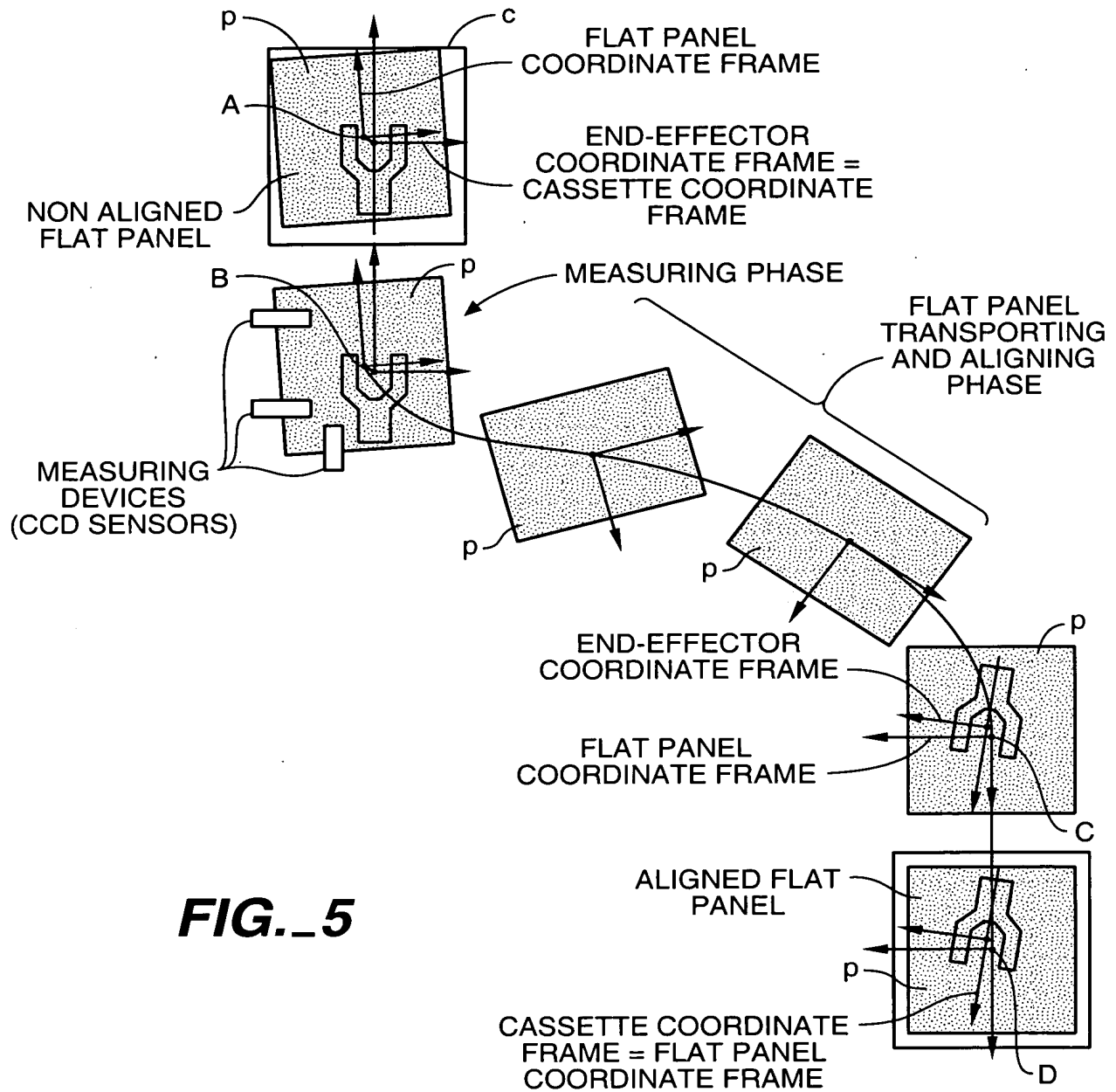
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



**FIG. 3B**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

**FIG.\_4**



**FIG.\_5**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

7 / 53

SEGMENT AB - ARM RETRACT ALONG R AXIS (THE ARM STOPS AT B)

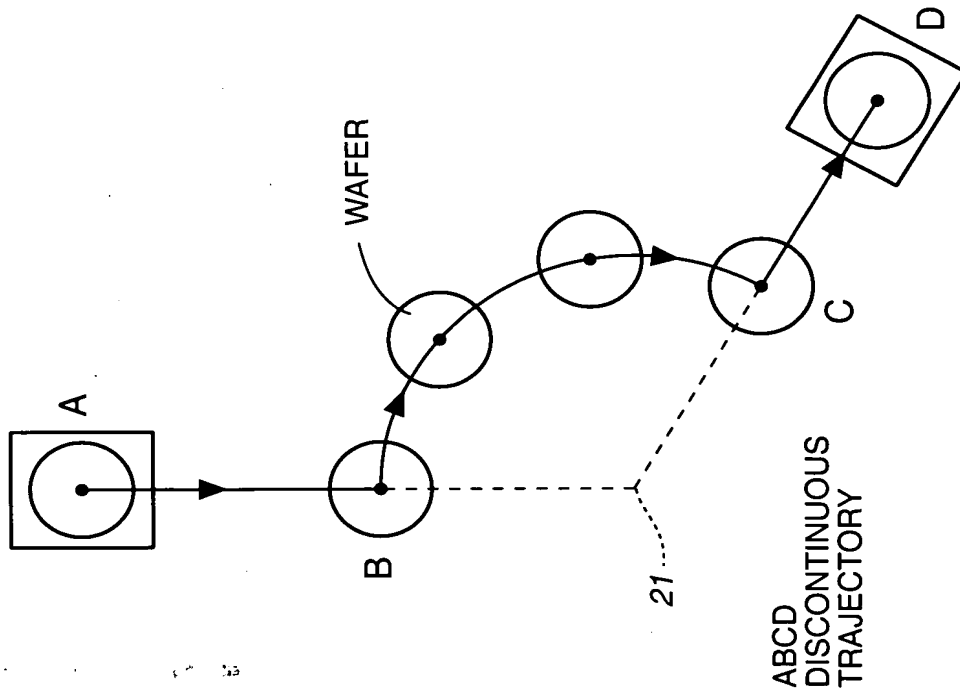
SEGMENT BC - ROTATION OF THE ARM ABOUT T AXIS (THE ARM STOPS AT C)

SEGMENT CD - ARM EXTEND

END EFFECTOR POLE VELOCITY

CURRENT PATH  
ALONG THE  
TRAJECTORY ABCD

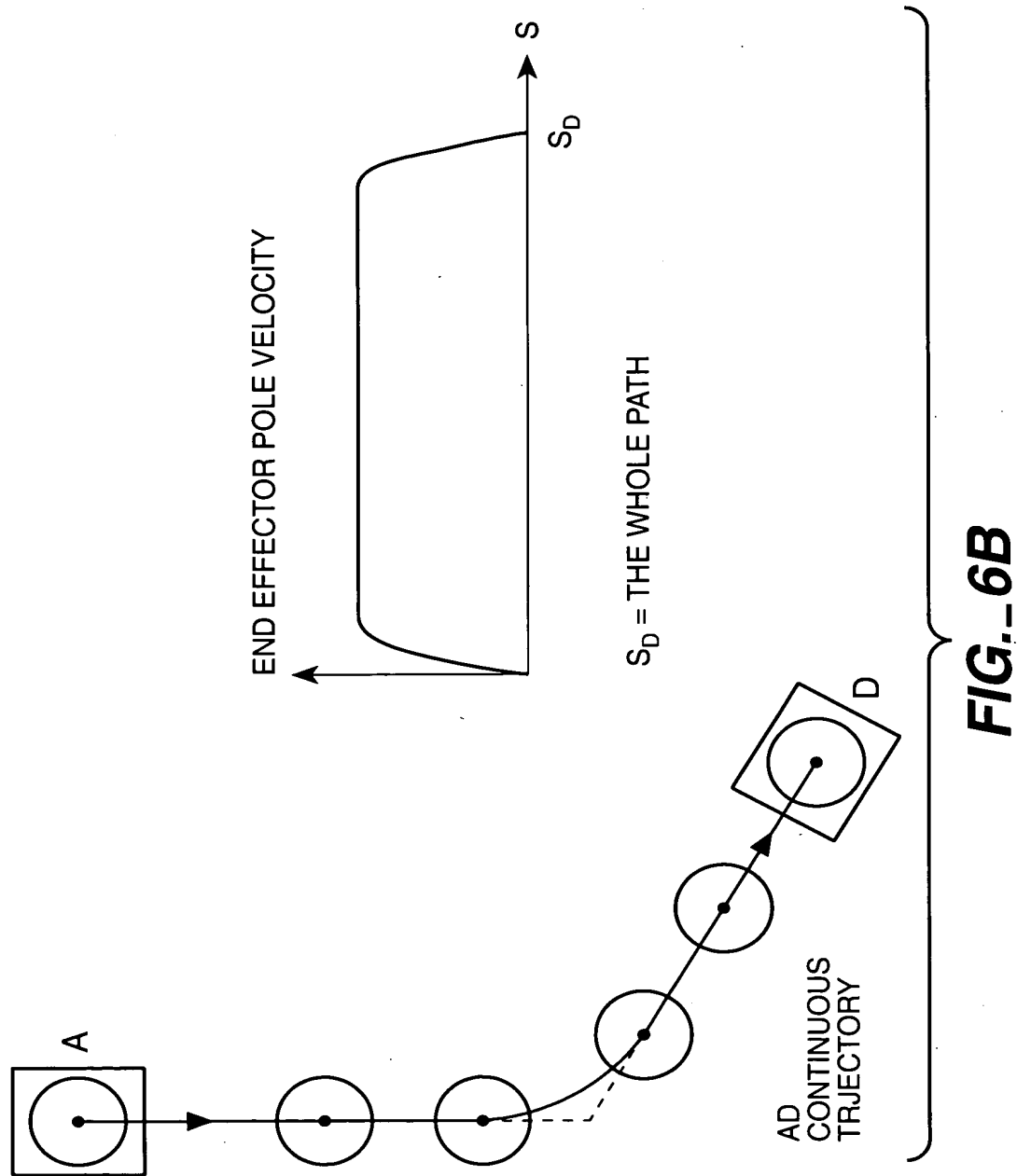
$S_B$  = THE PATH AT B (FROM A TO B)  
 $S_C$  = THE PATH AT C (FROM A TO C)  
 $S_D$  = THE WHOLE PATH (FROM A TO D)



**FIG. 6A**  
(PRIOR ART)

APPROVED		010063-061	
BY		O.G. FIG.	
DRAFTSMAN		CLASS	SUBCLASS

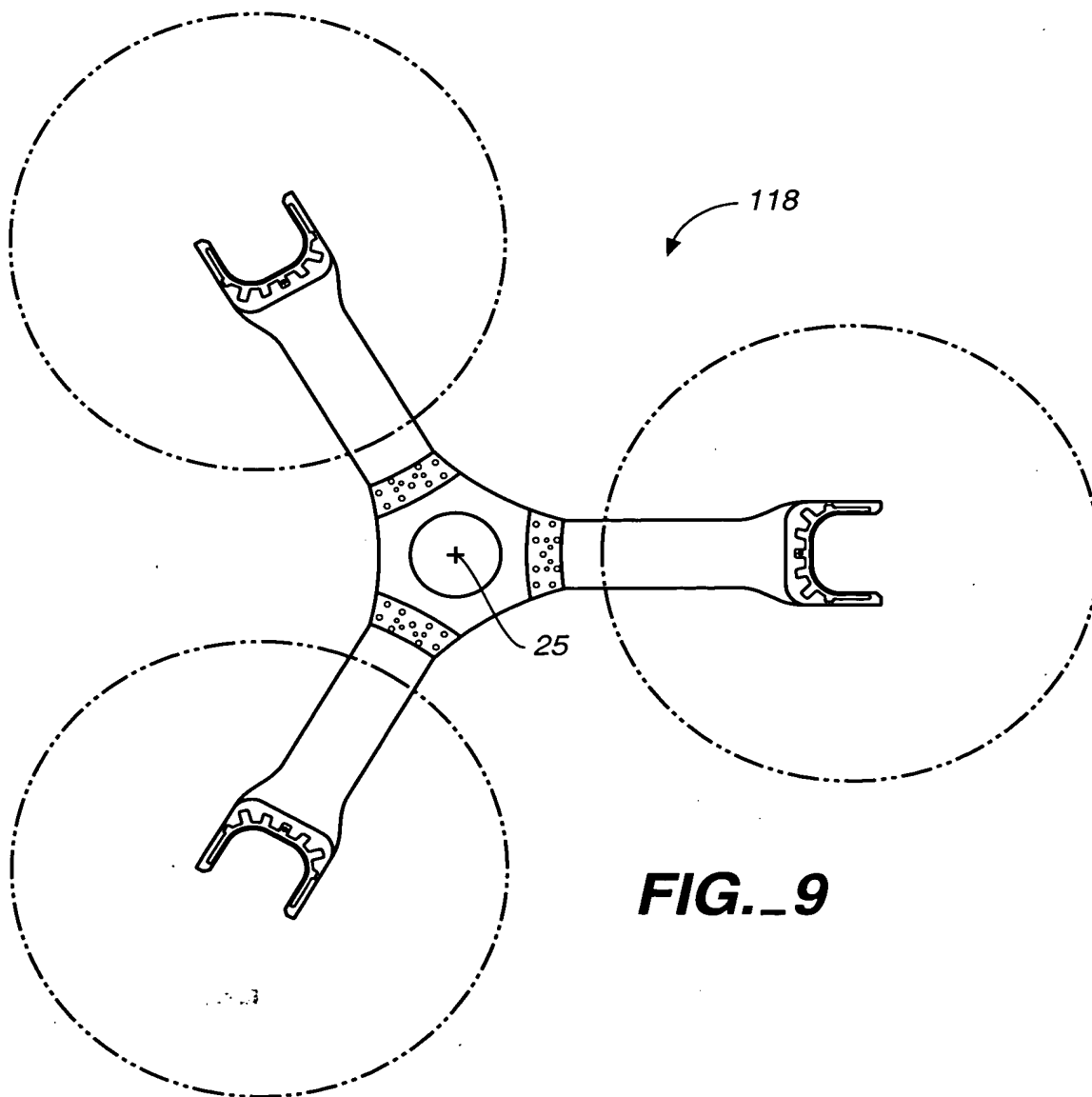
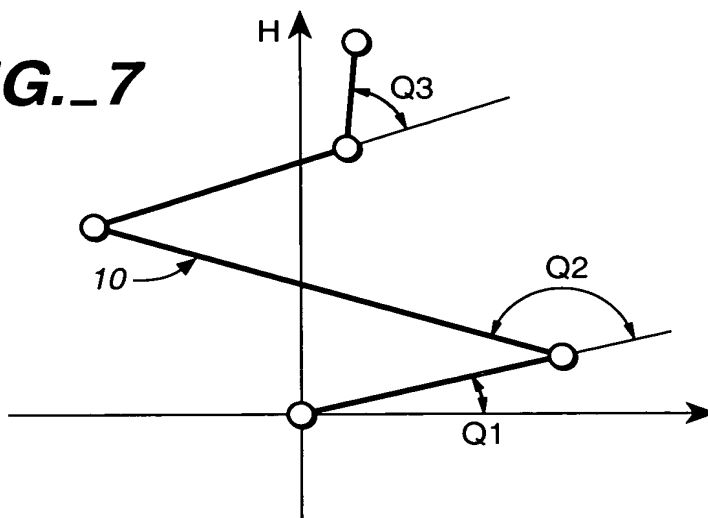
8 / 53





9 / 53

**FIG.\_7**



**FIG.\_9**

+



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

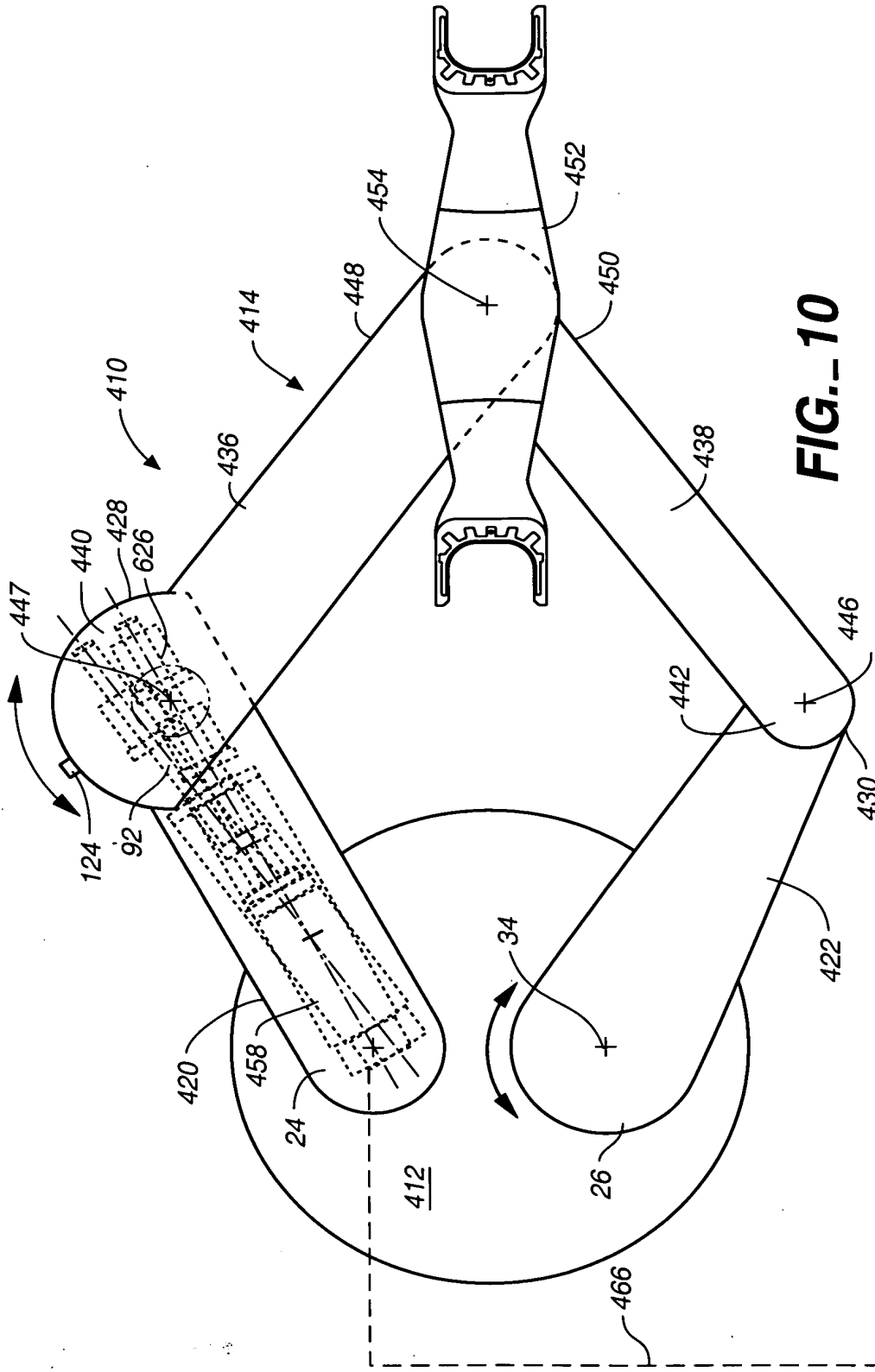


FIG. 10

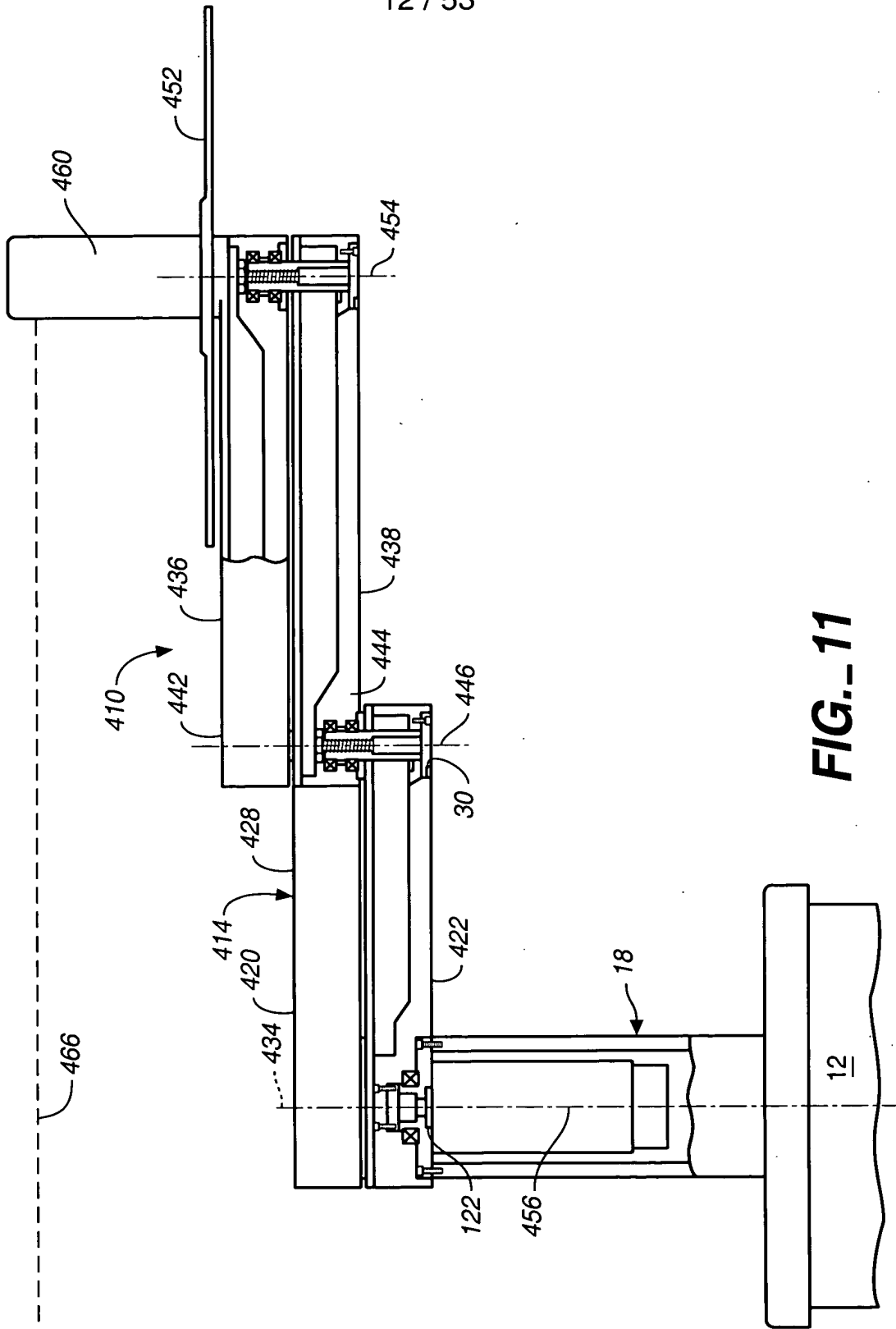
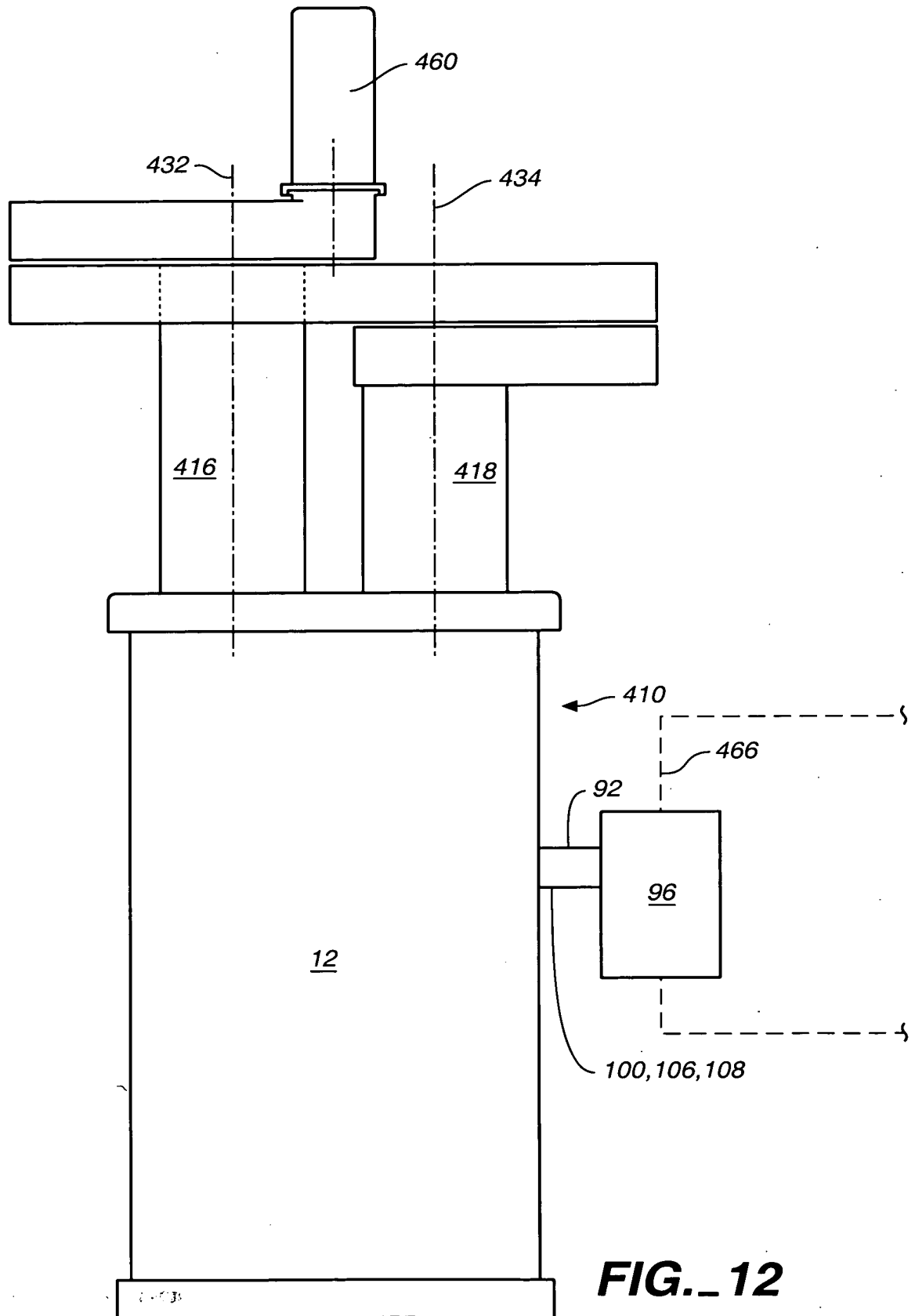


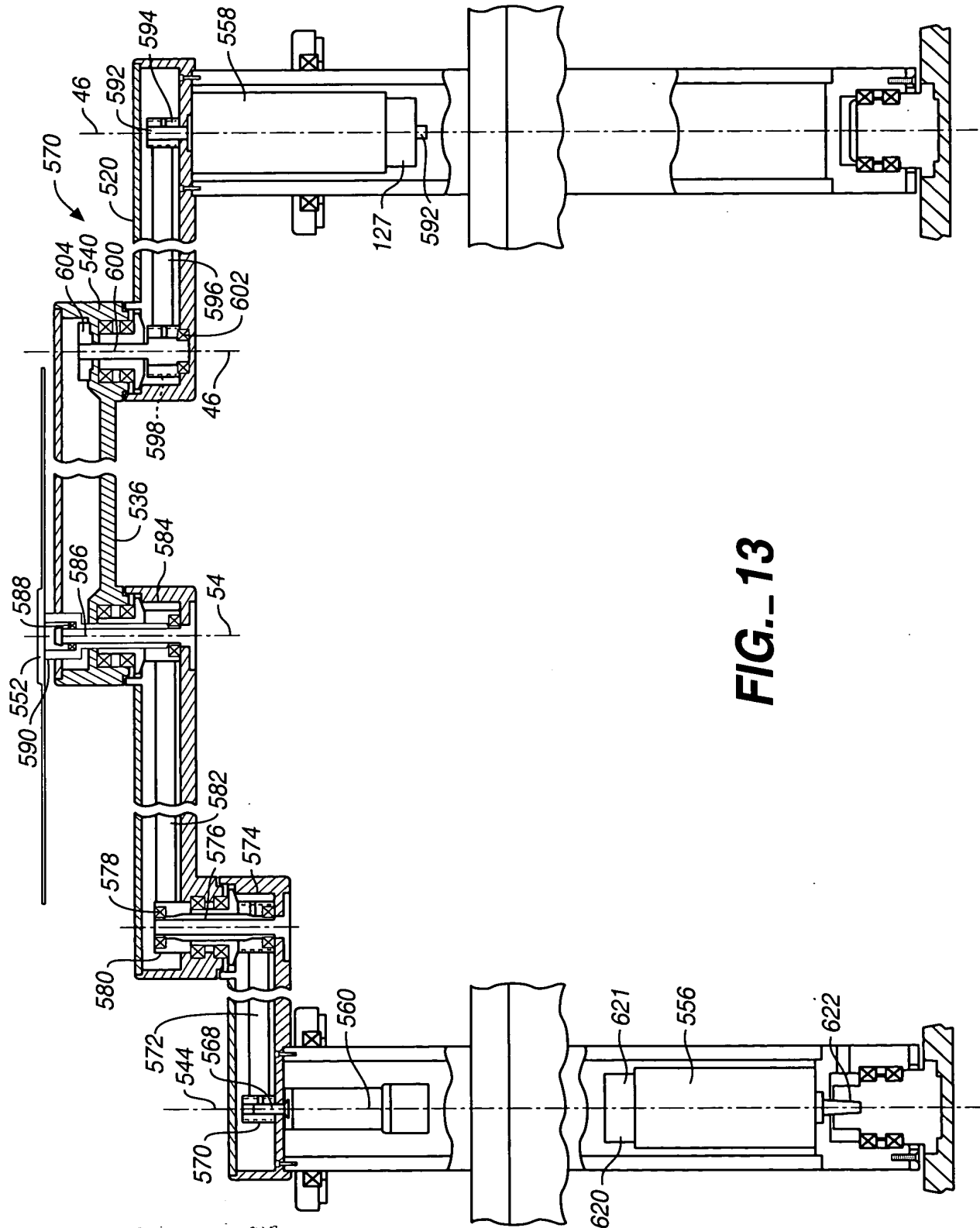
FIG. 11

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

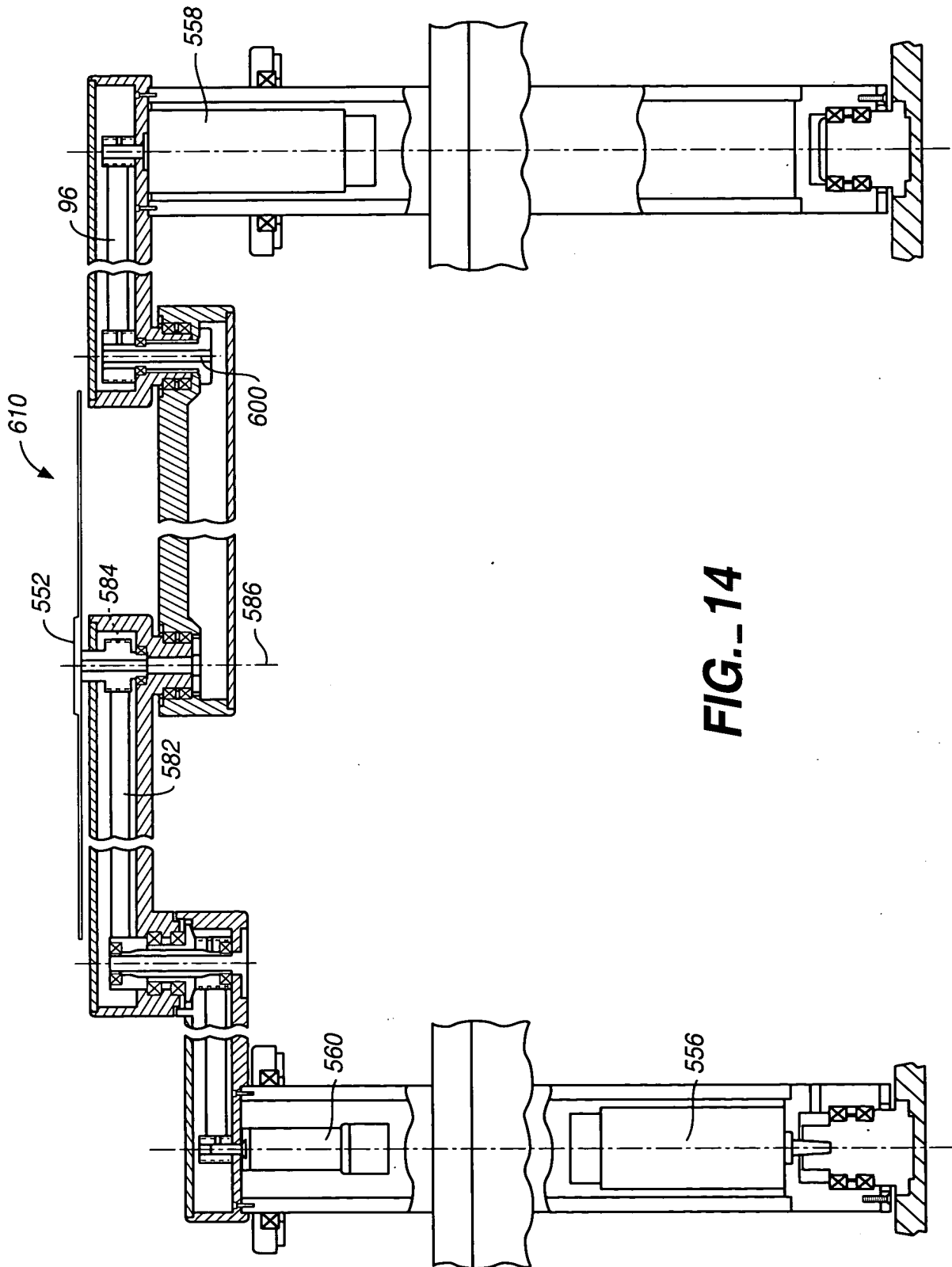
13 / 53

**FIG. 12**

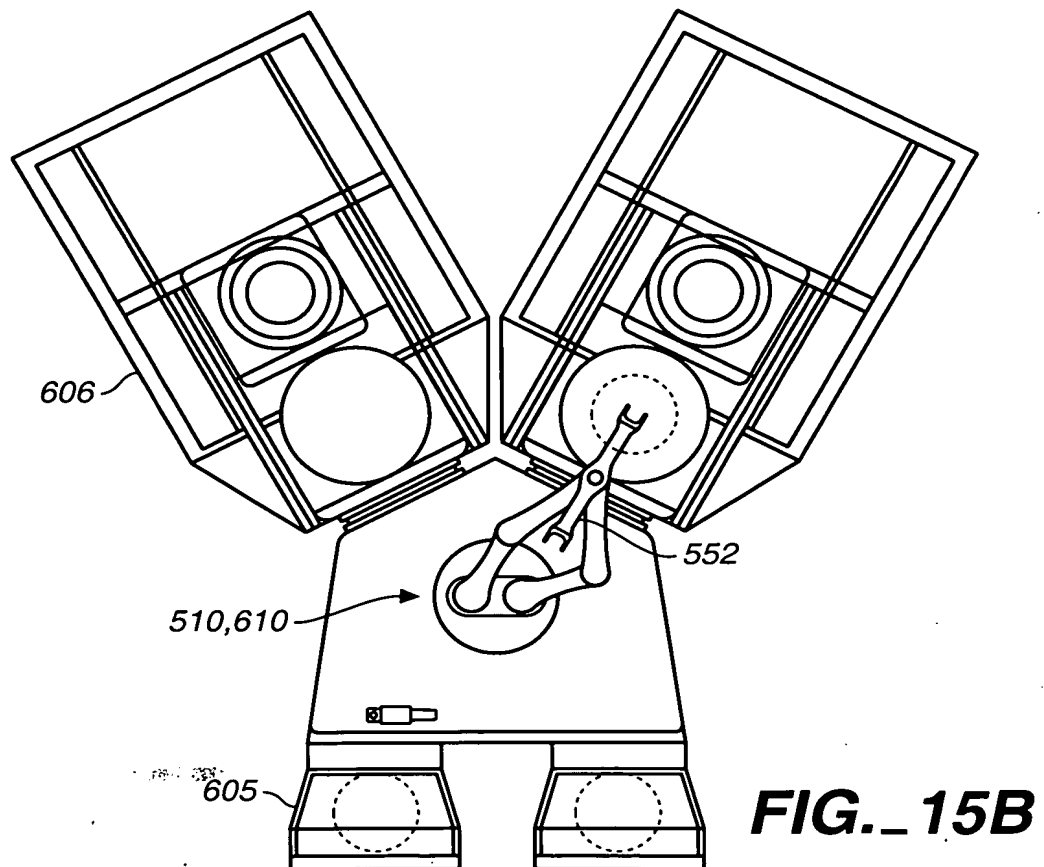
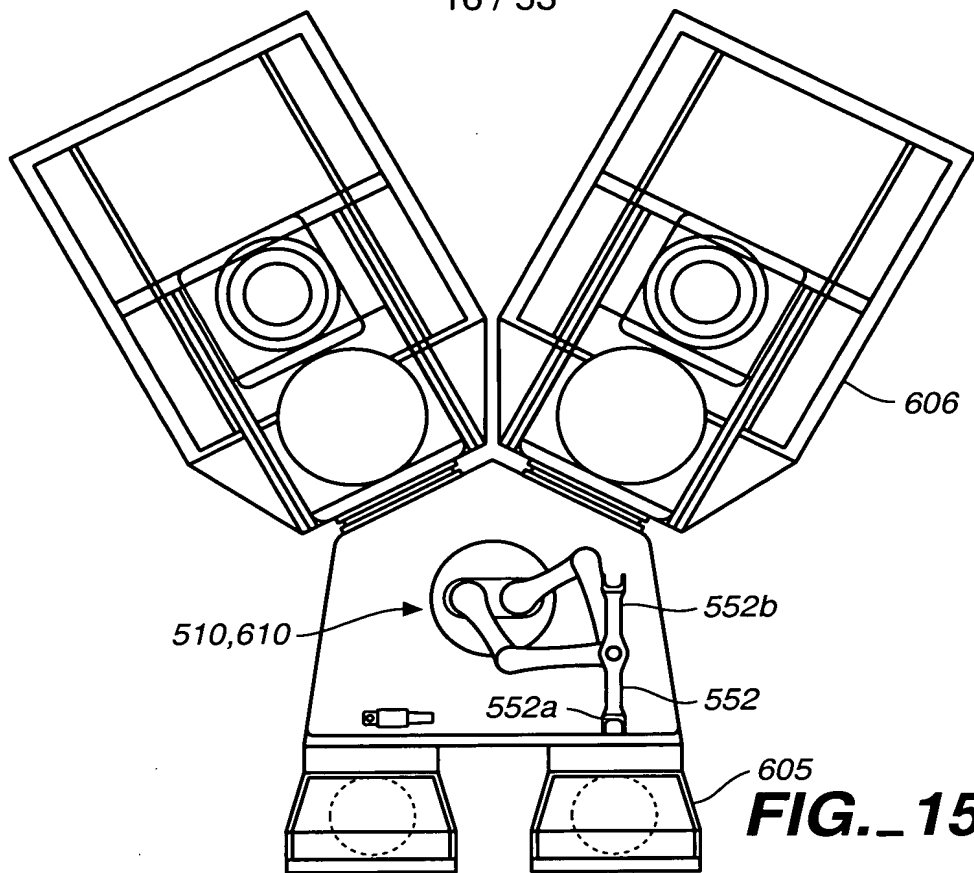
APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

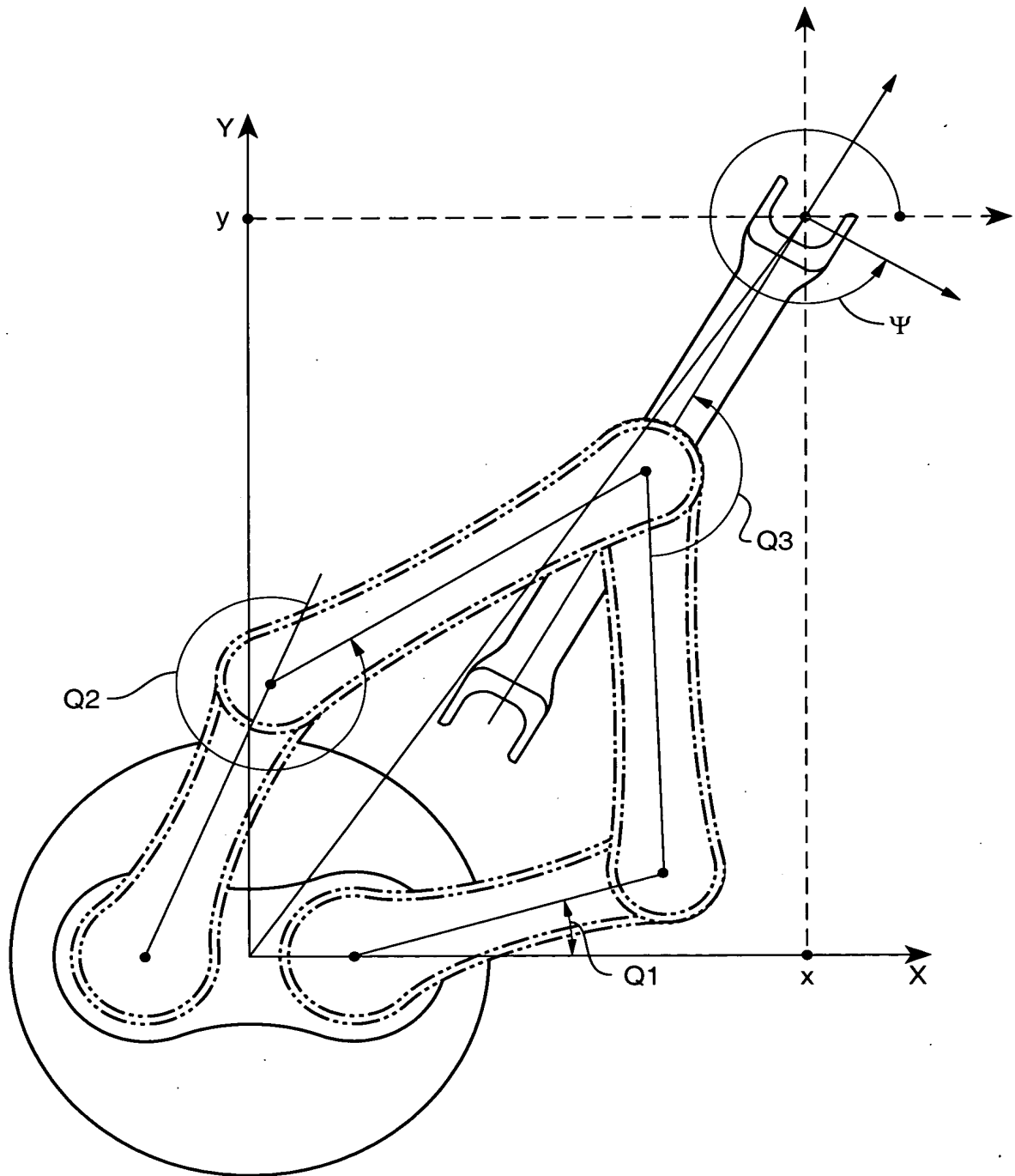


16 / 53

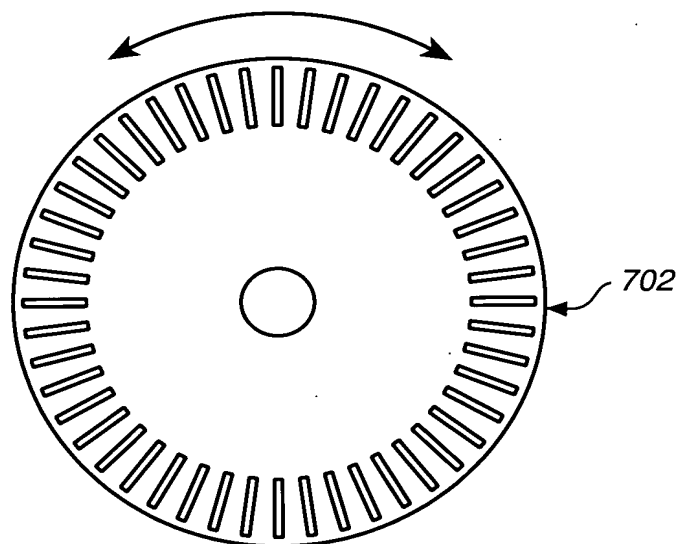
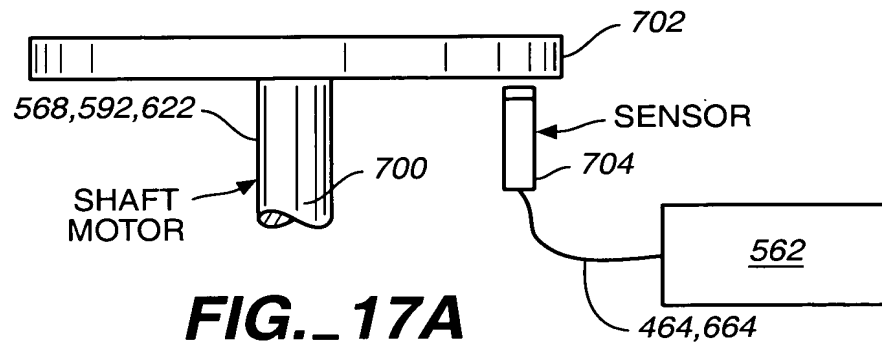




APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

**FIG. 16**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

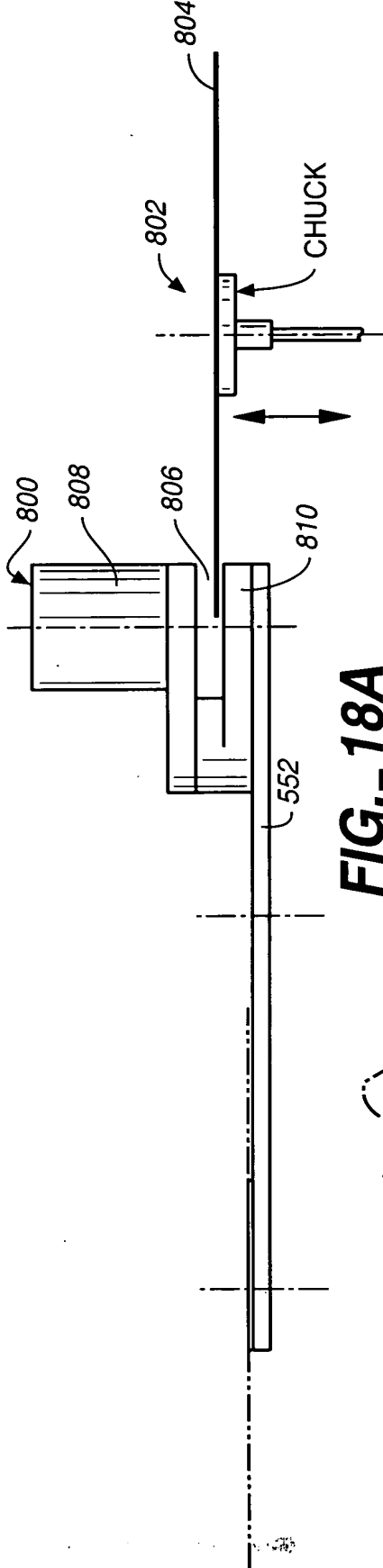


FIG. 18A

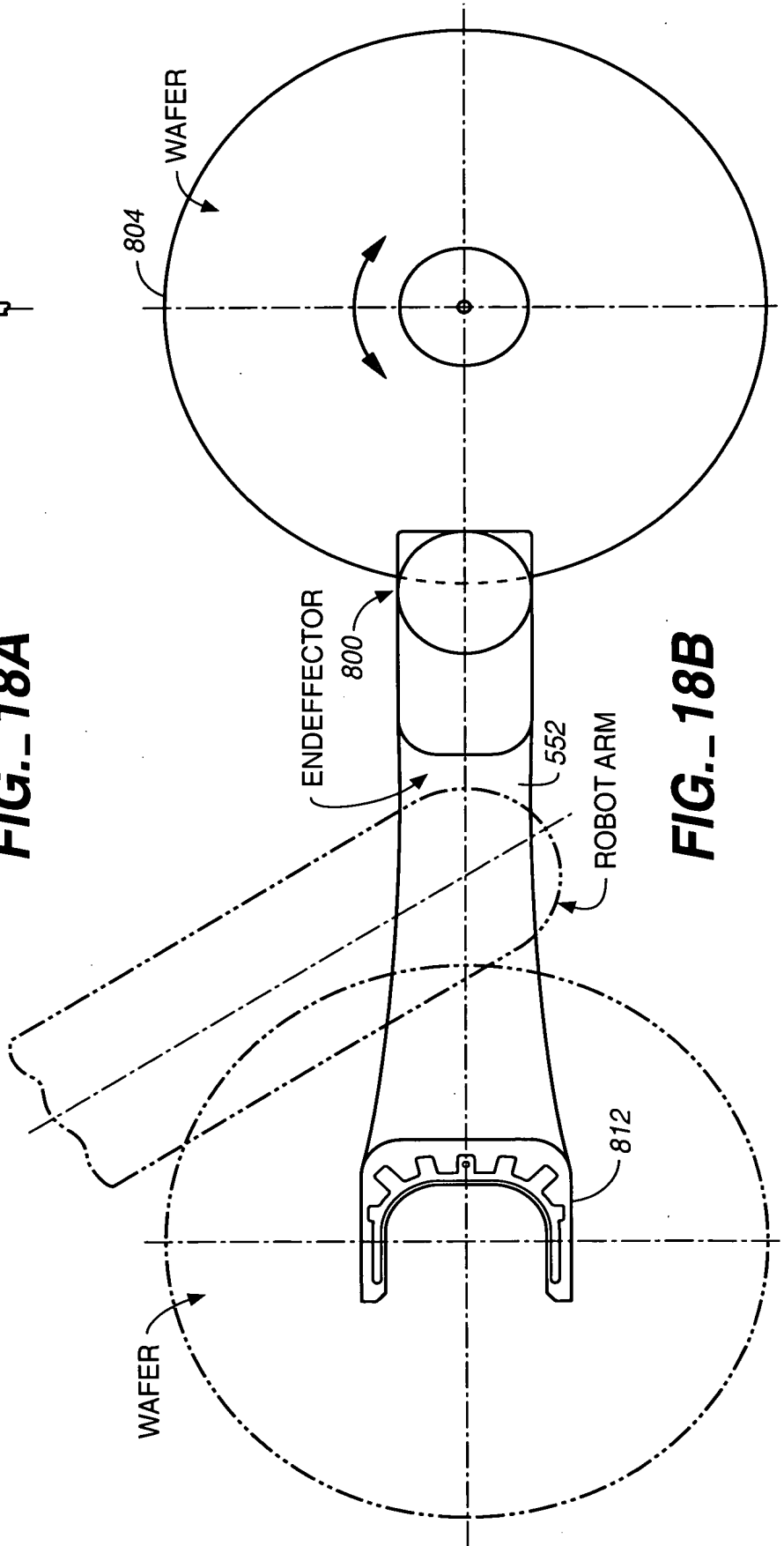
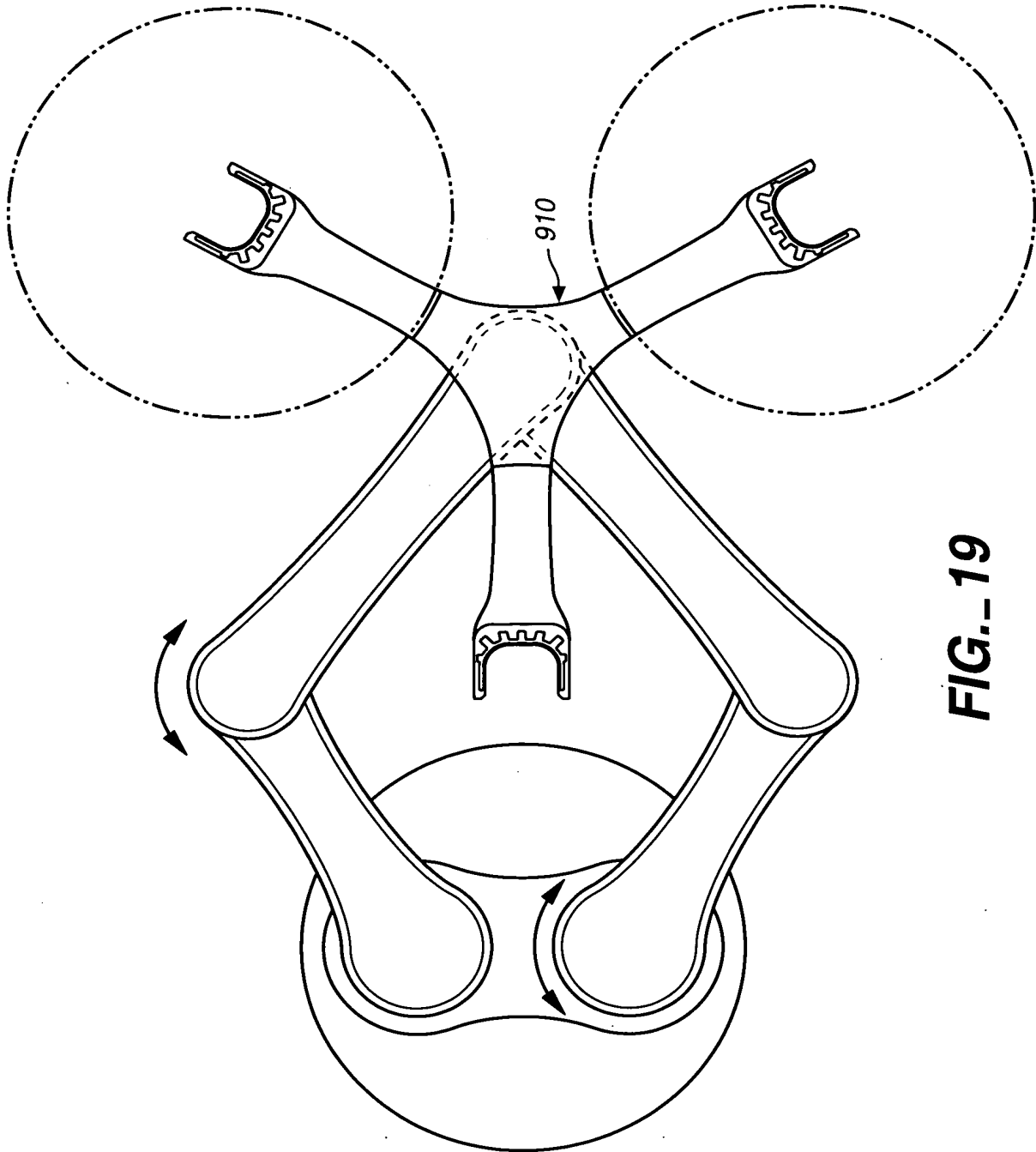


FIG. 18B

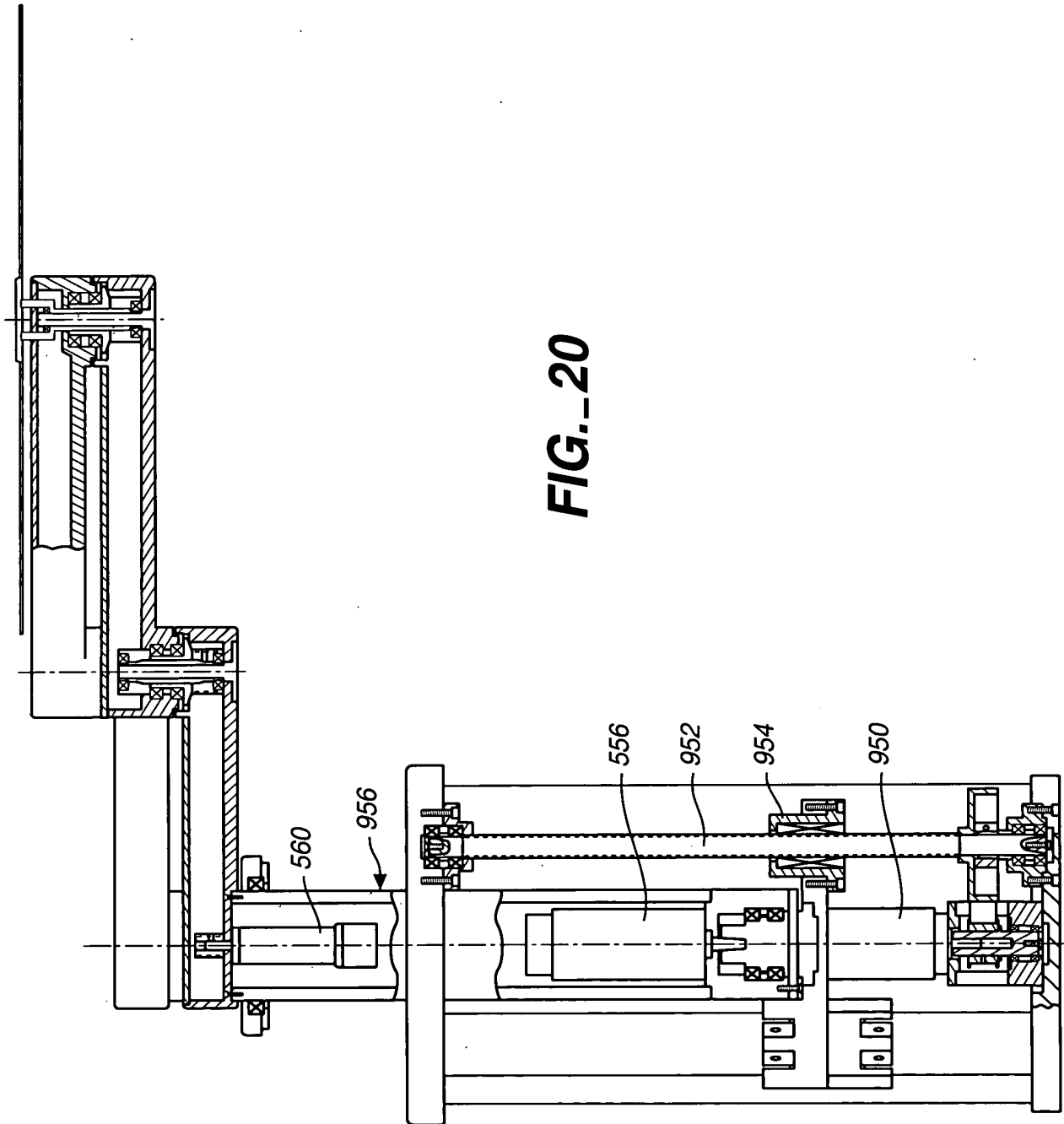
010063-061

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

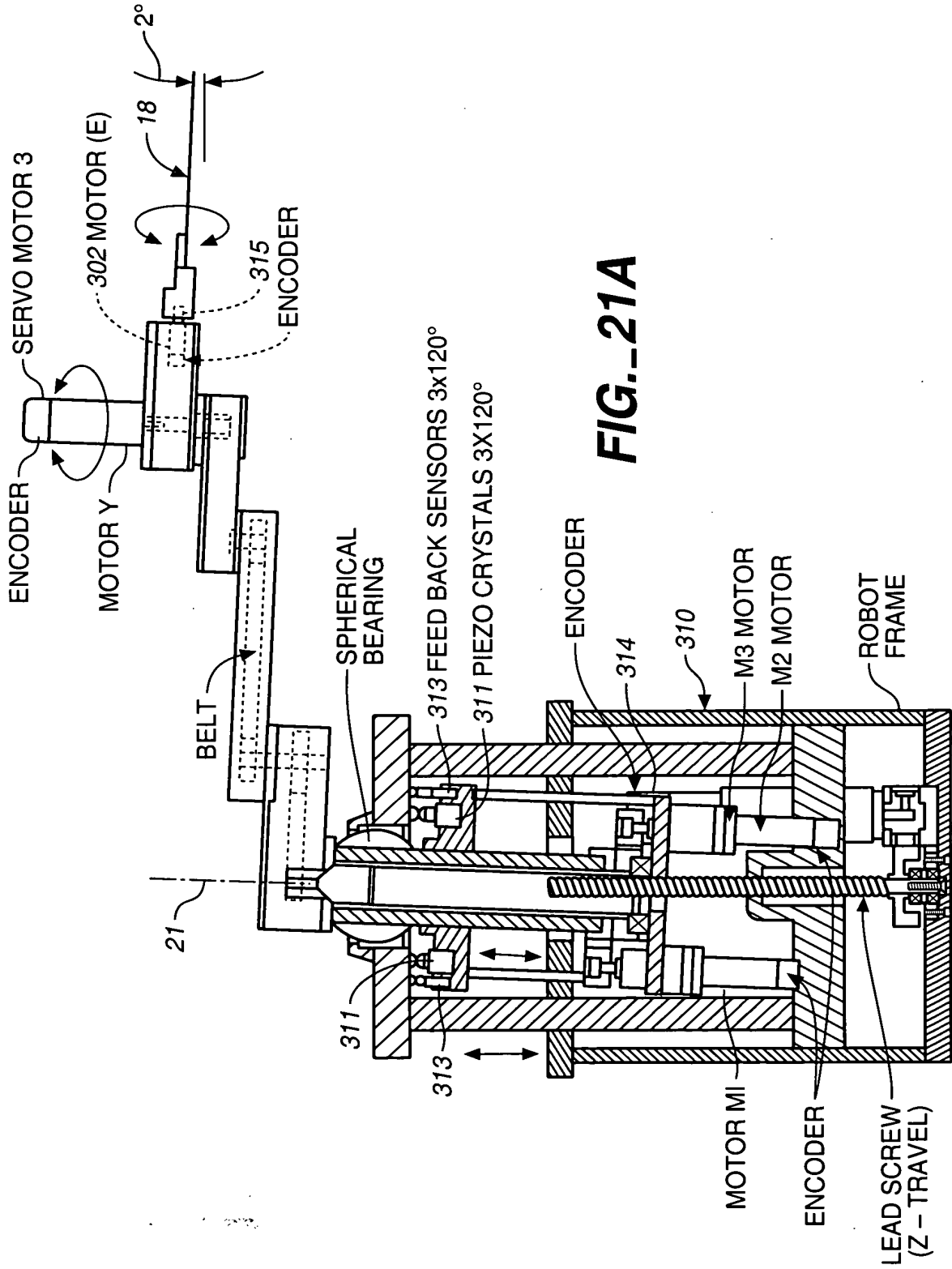
20 / 53



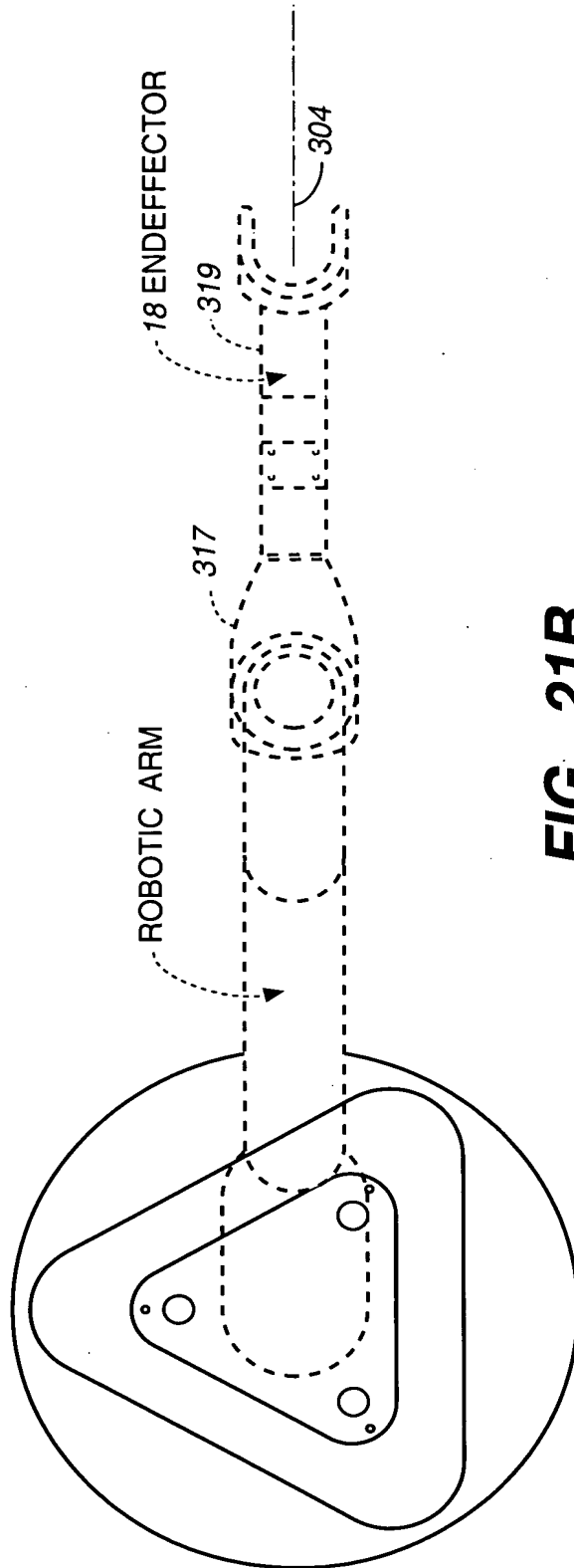
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



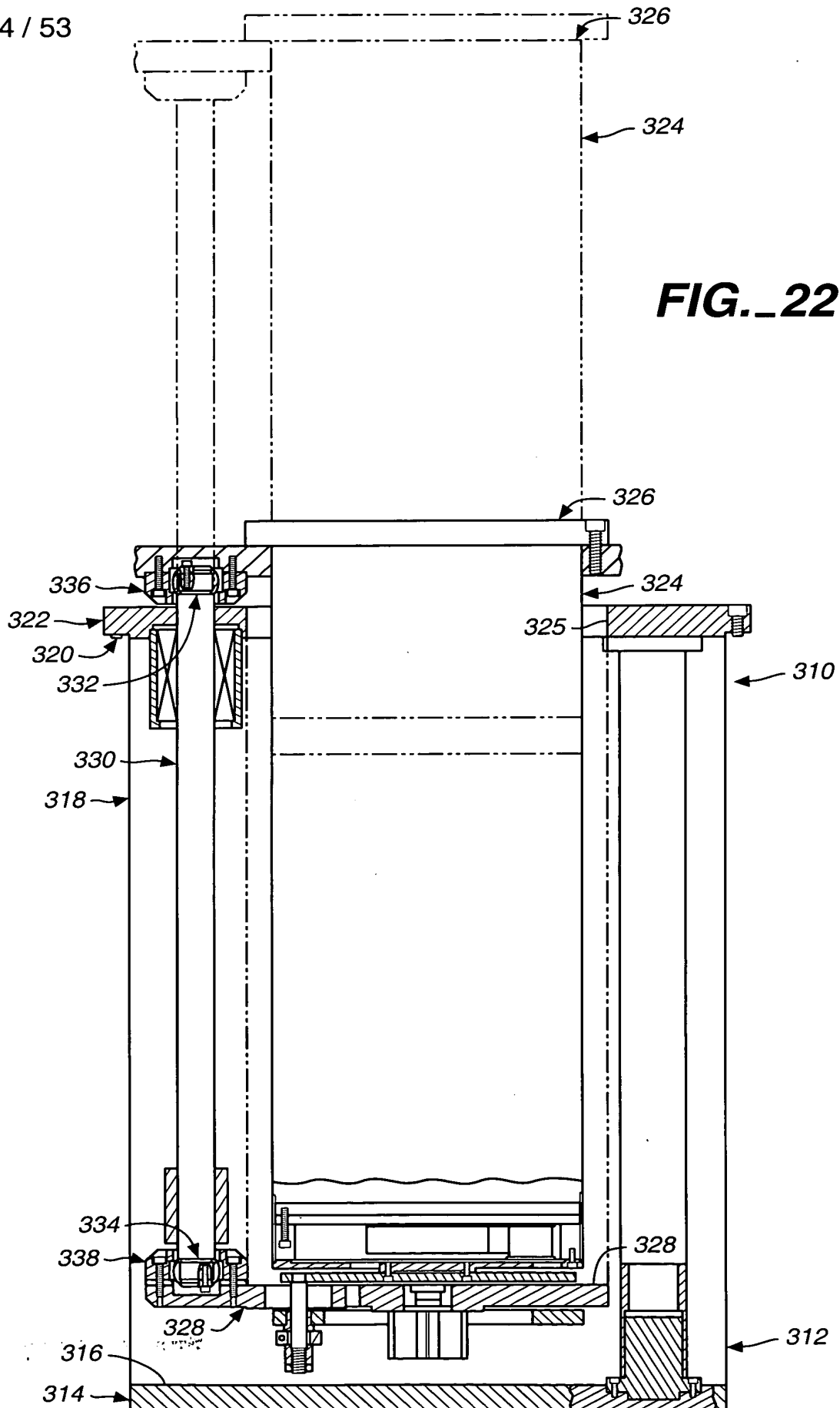
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



**FIG. 21B**



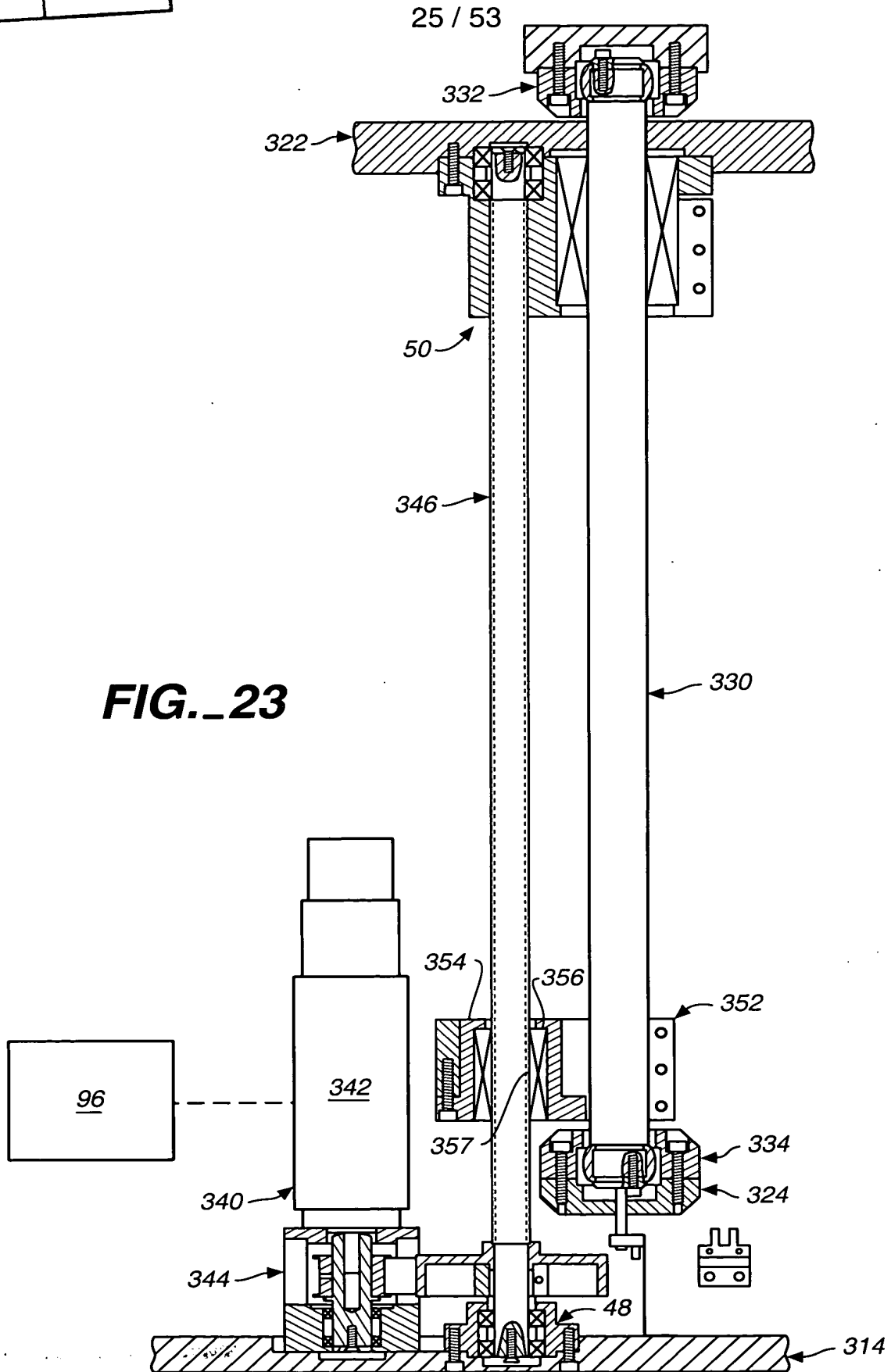


010063-061

APPROVED	J.B. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

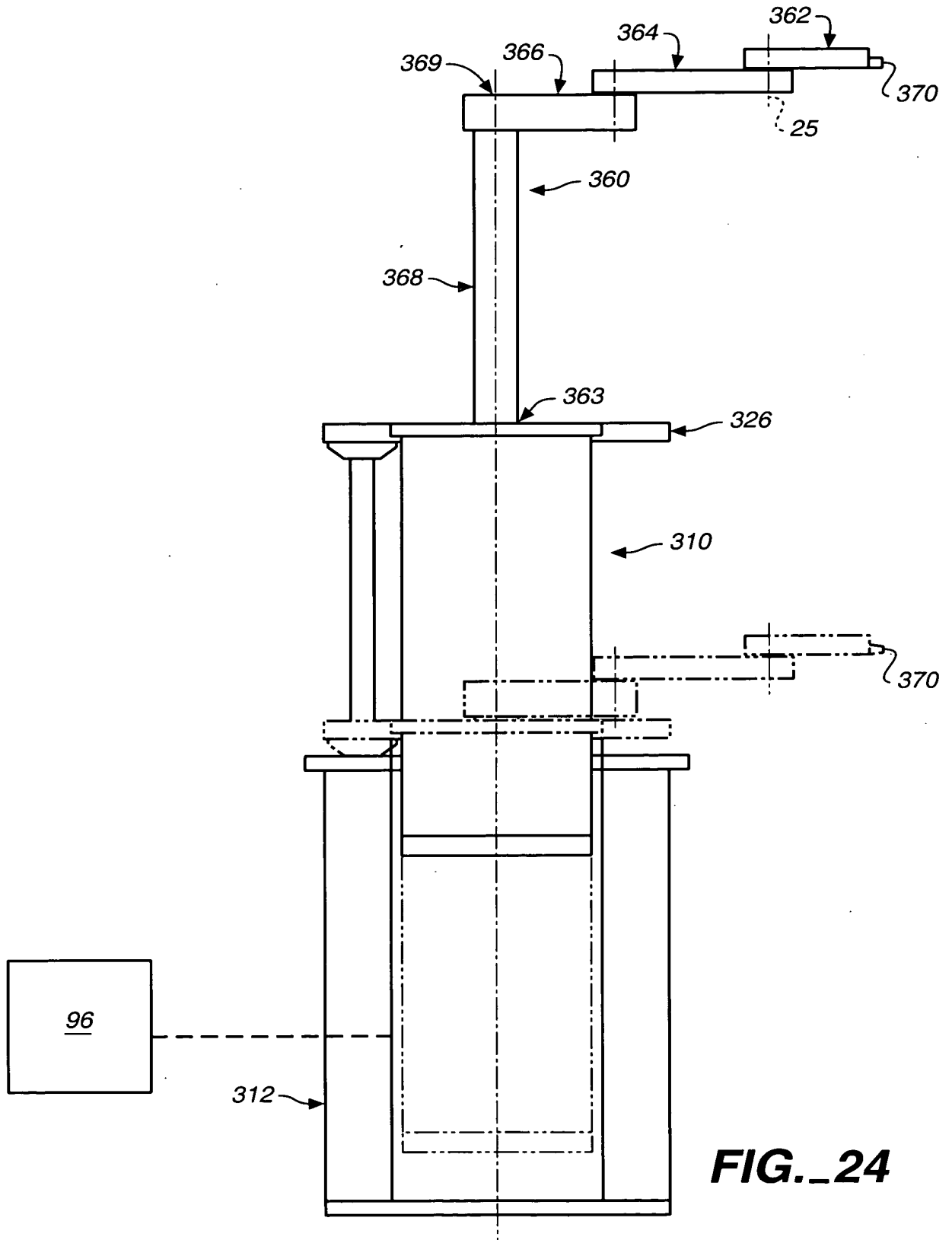
25 / 53

**FIG.\_23**



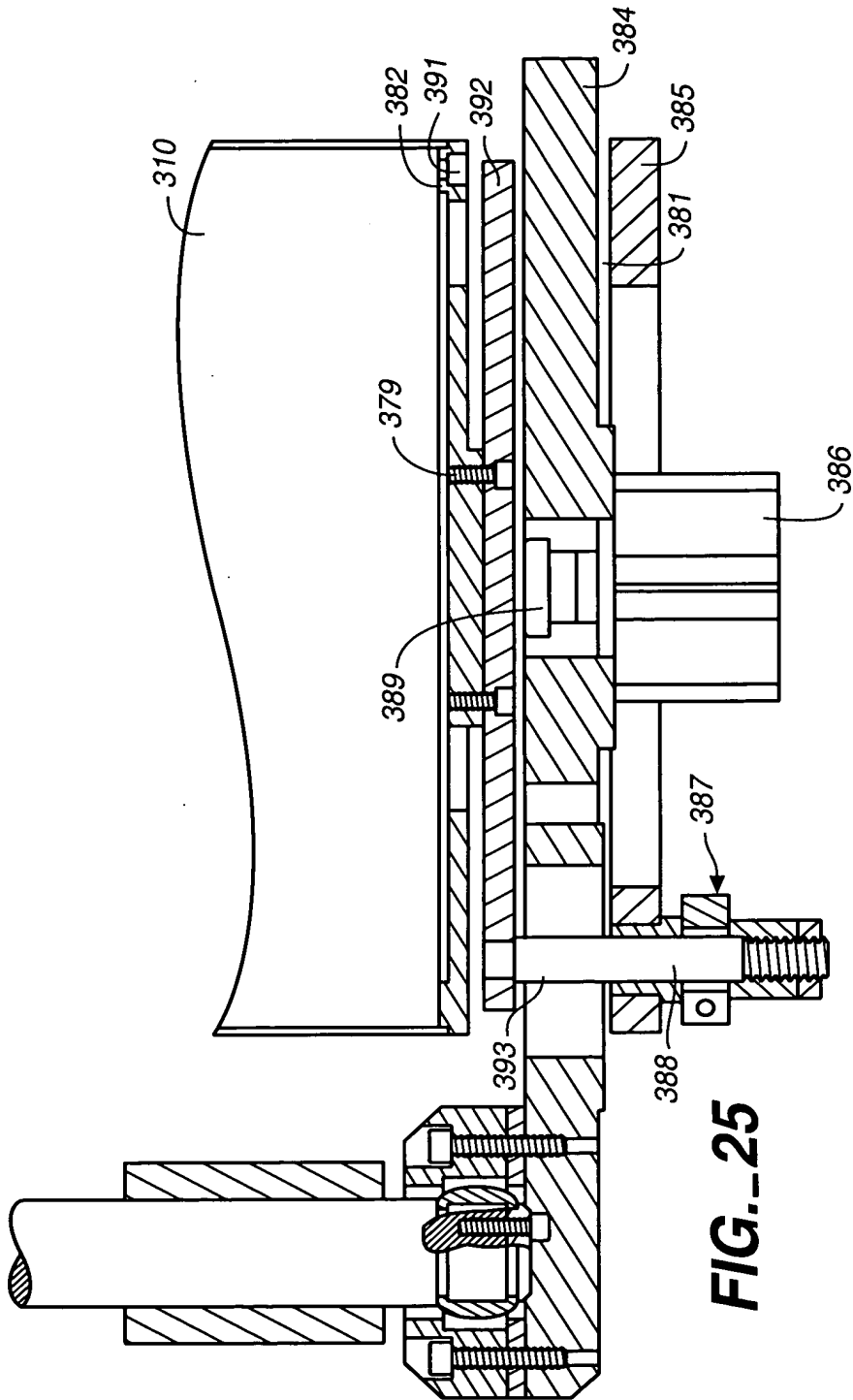
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

26 / 53



**FIG. 24**

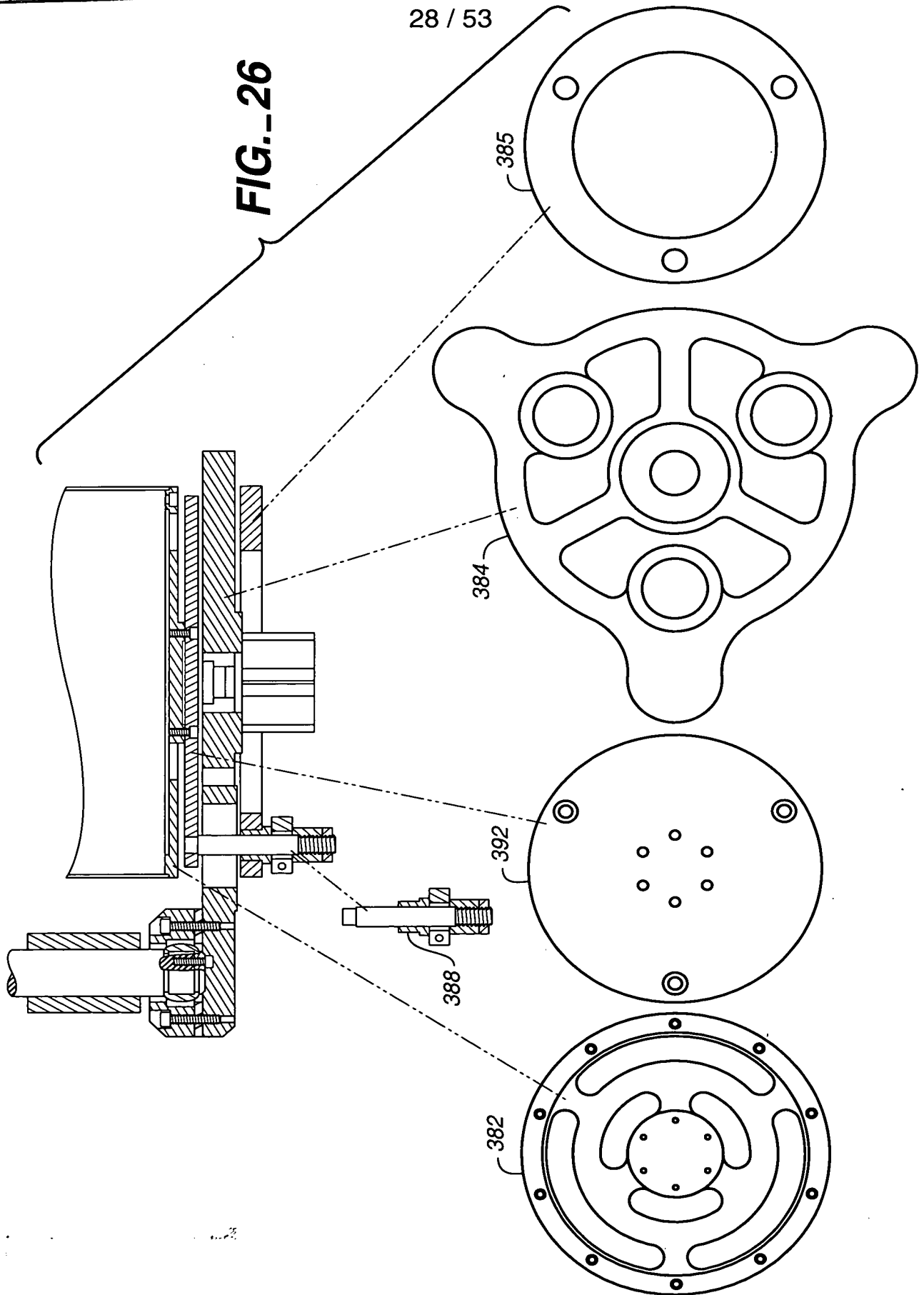
APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	CLASS



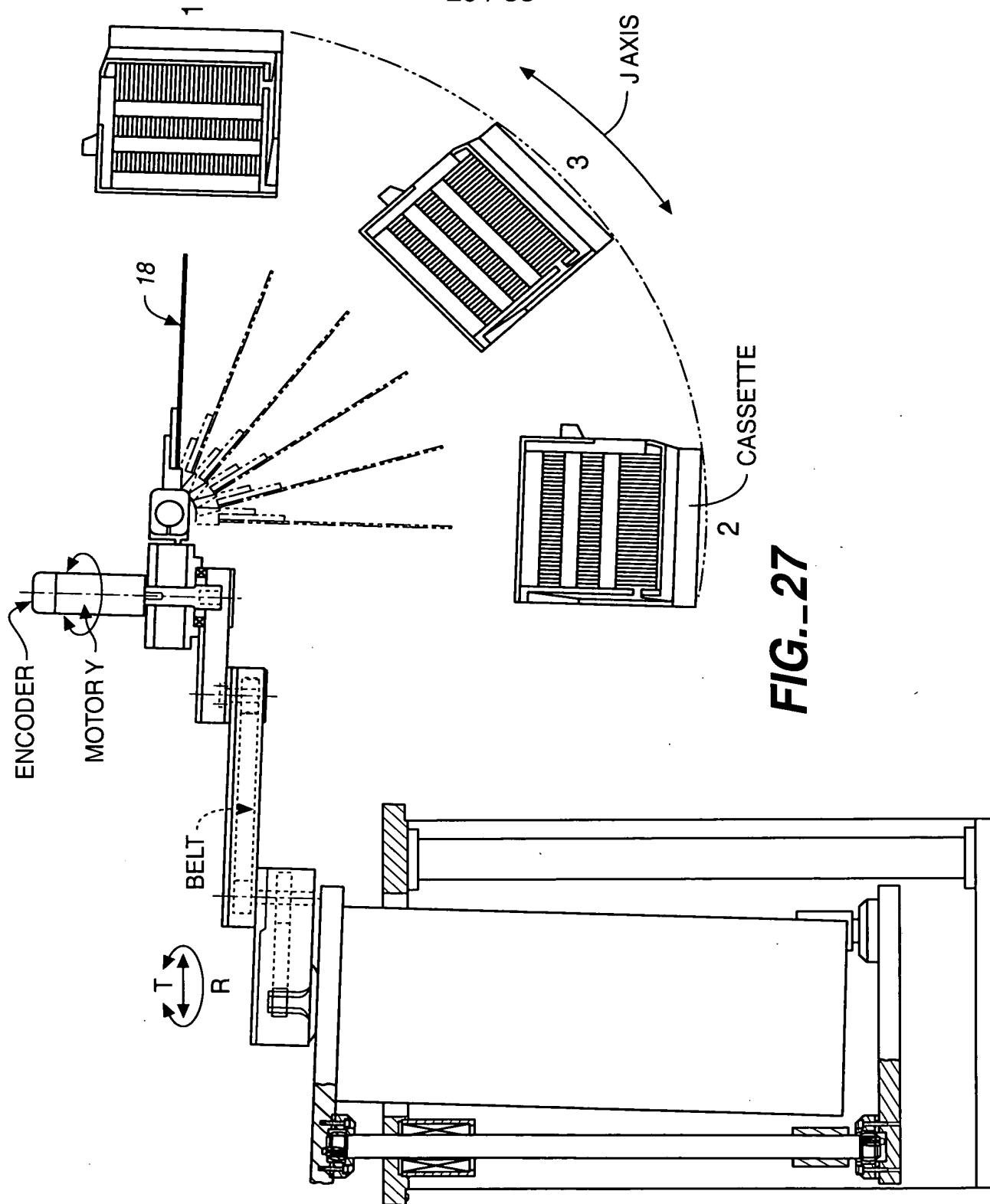
010063-061		
D.G. FIG.		
APPROVED	CLASS	SUBCLASS
BY		
DRAFTSMAN		

28 / 53

FIG. 26



29 / 53



APPROVED	
BY	SUBCLASS
DRAFTSMAN	

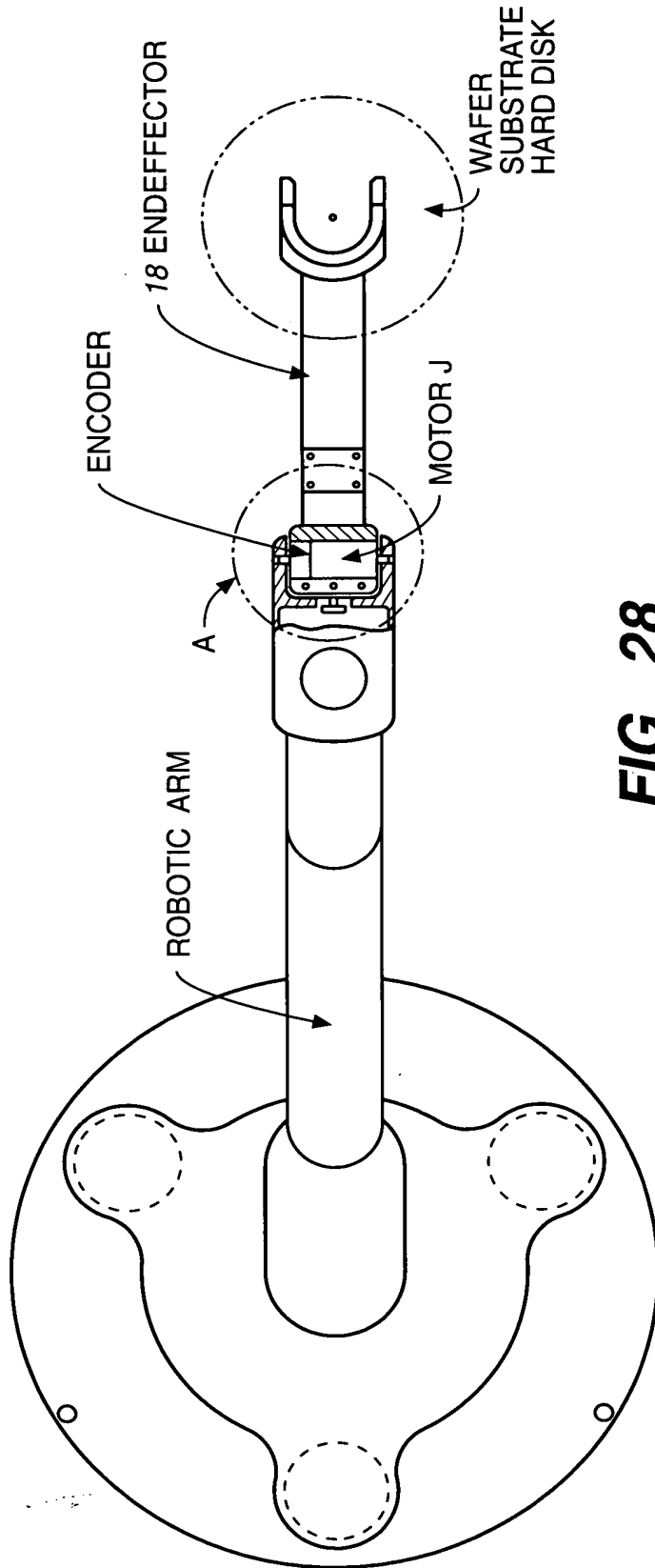
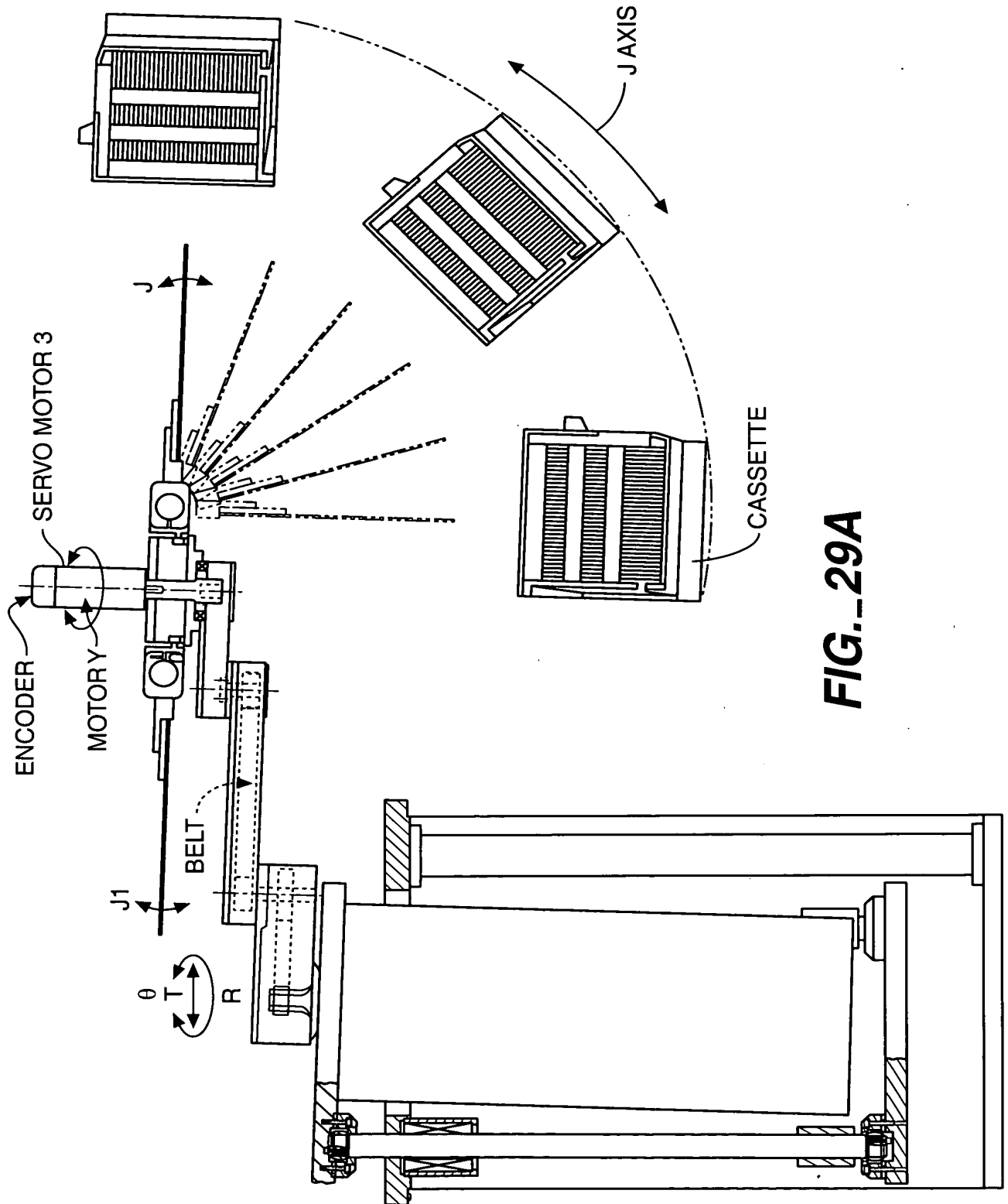
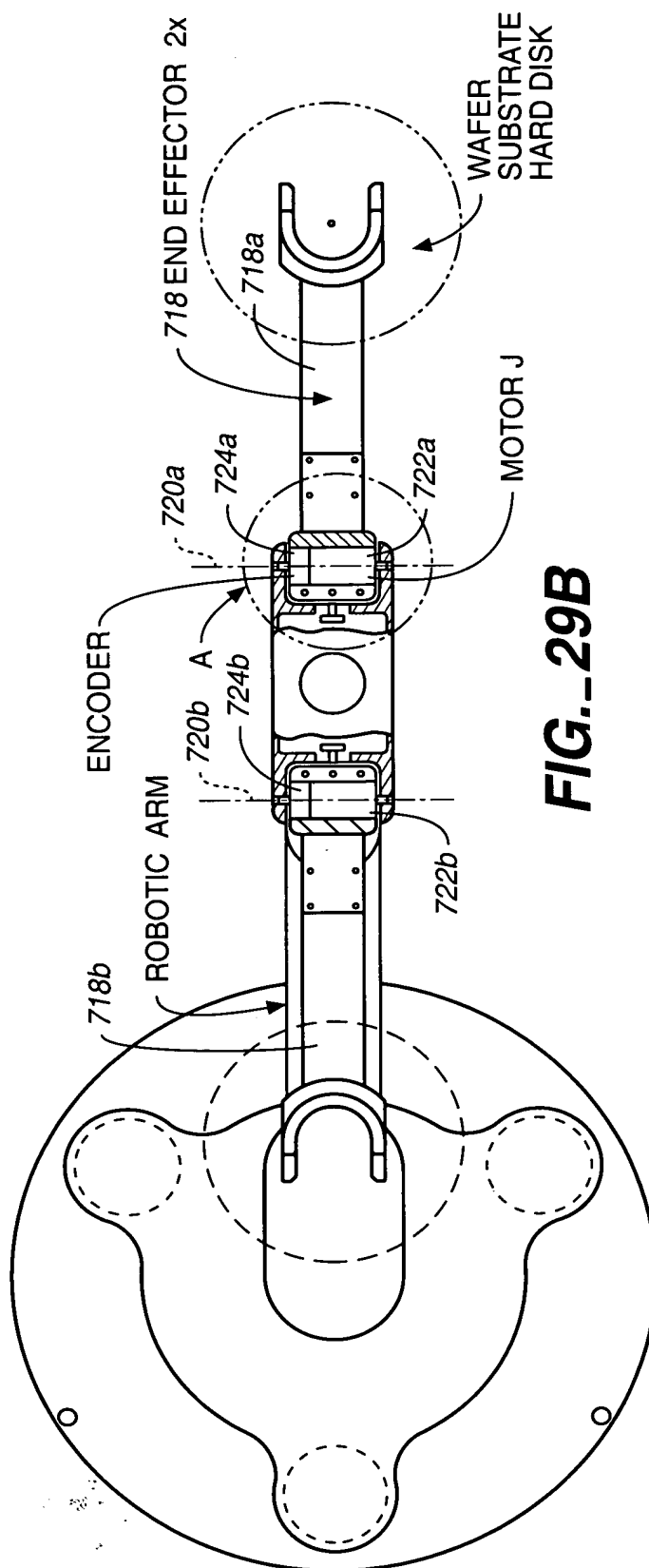


FIG. 28

31 / 53



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

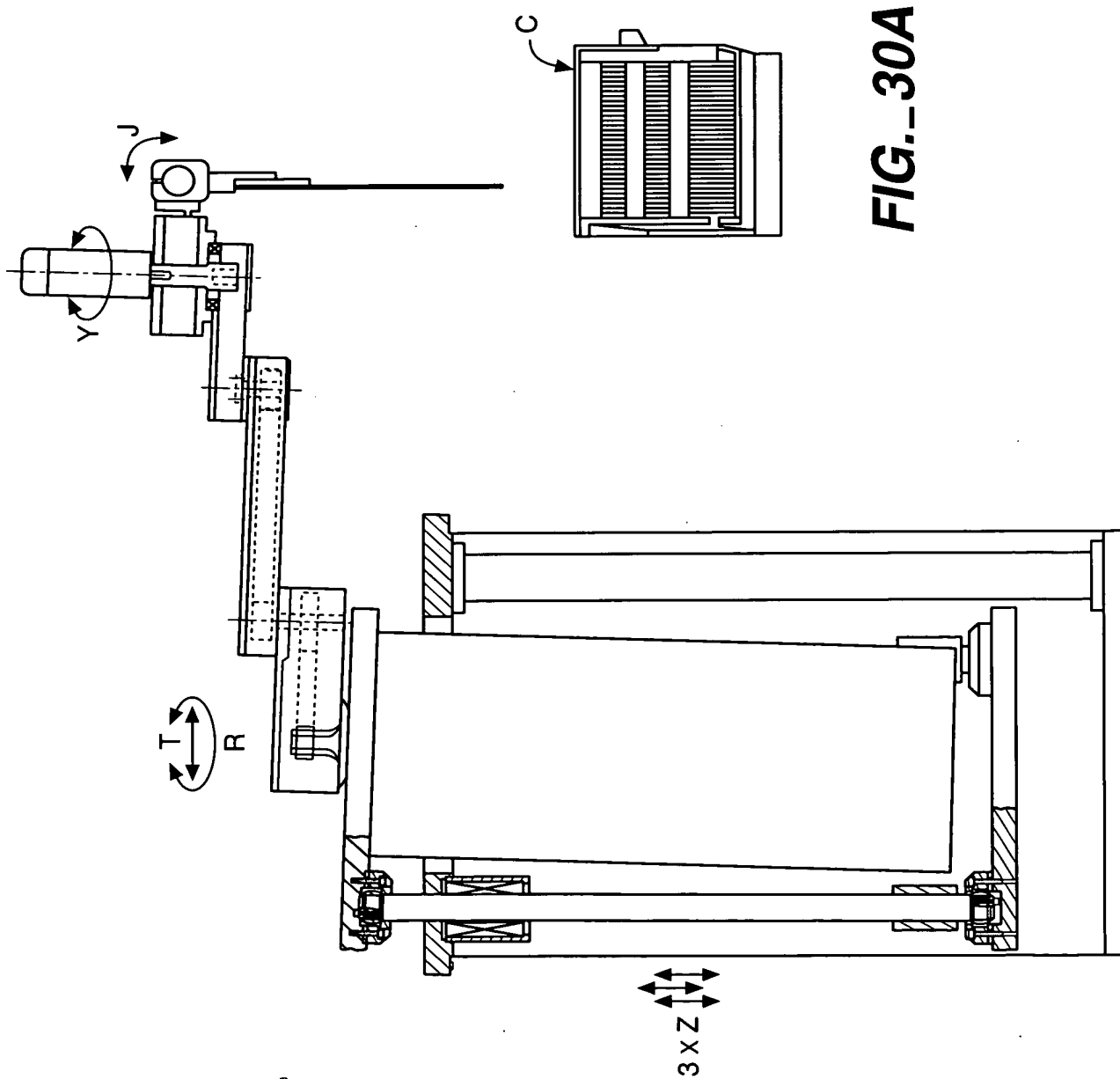


**FIG.-29B**



APPROVED	010063-061 O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

33 / 53



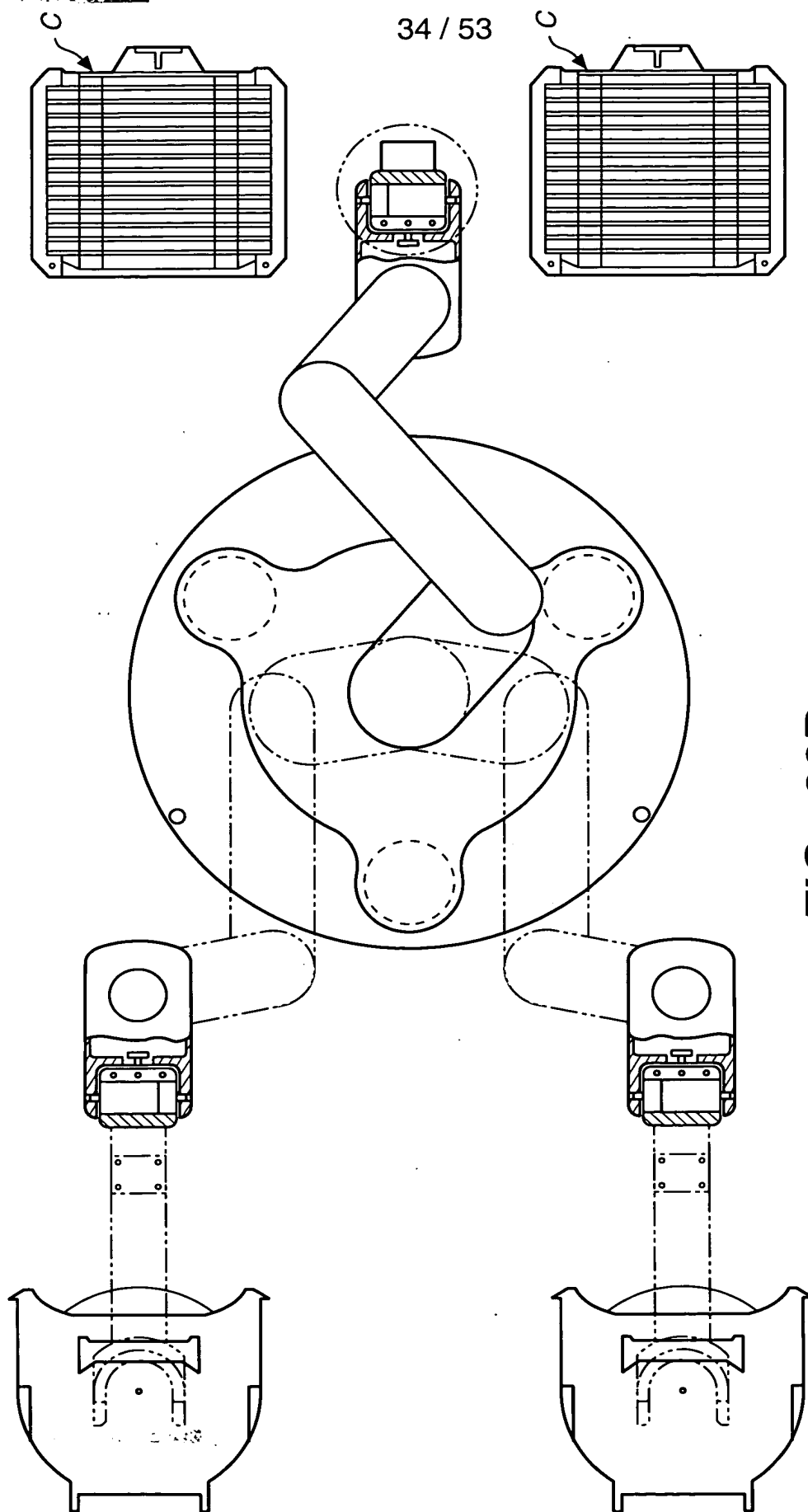
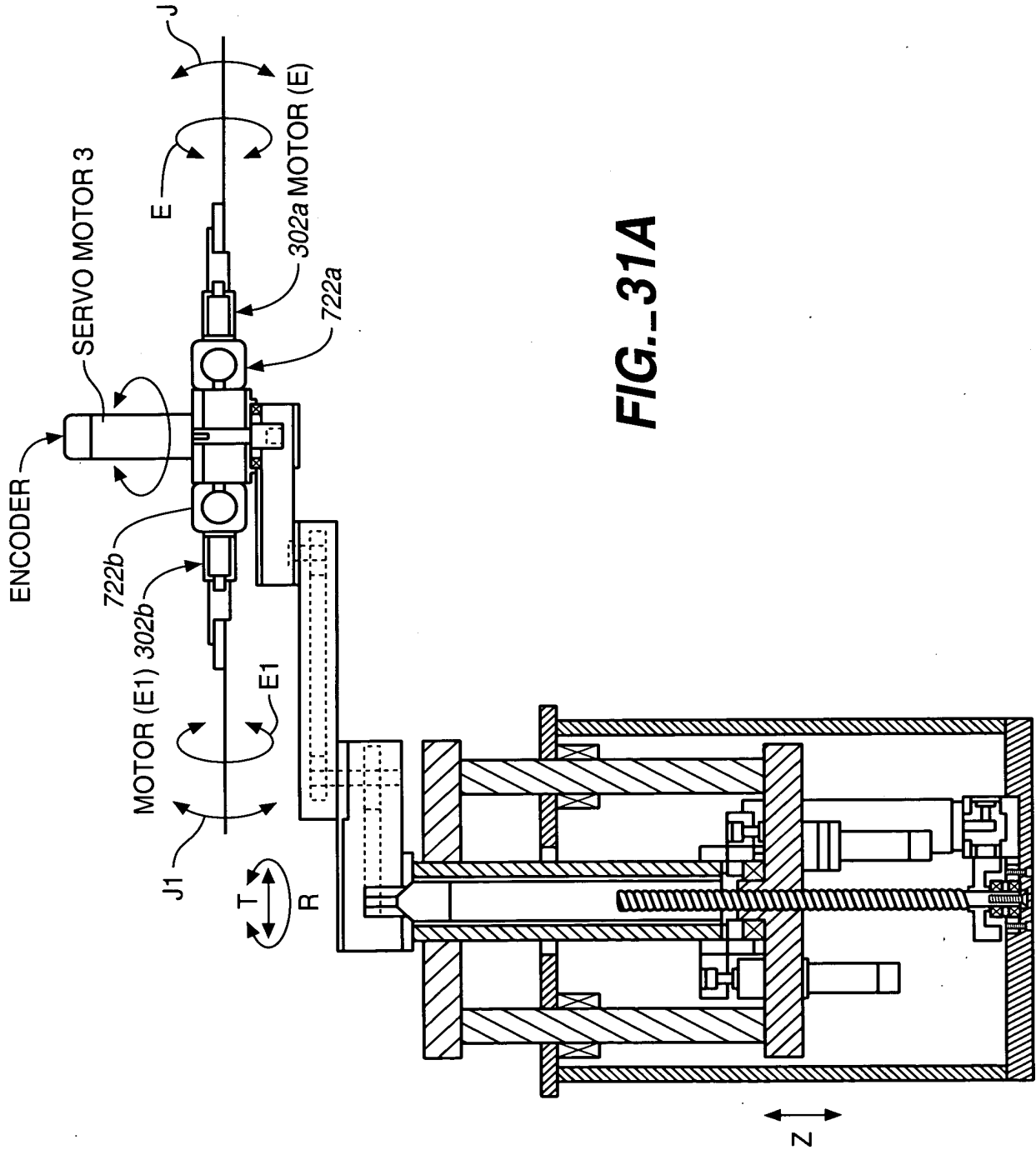
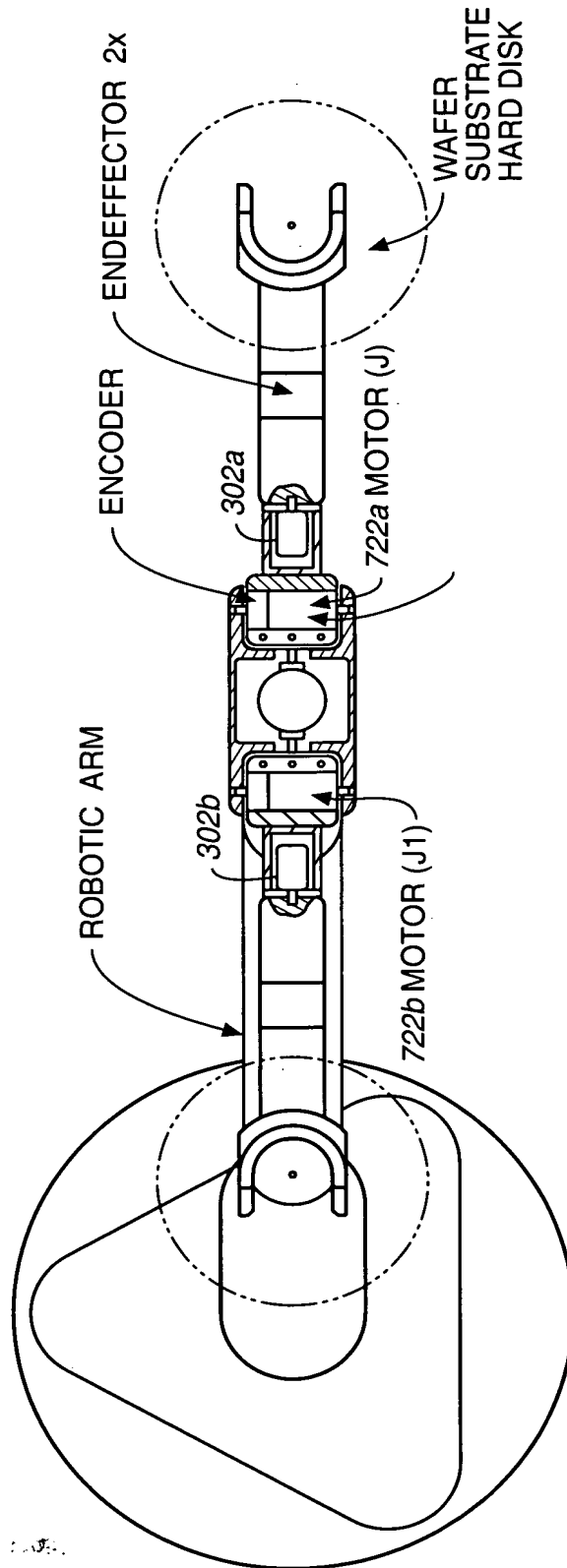


FIG. 30B



APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

**FIG. 31B**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

37 / 52

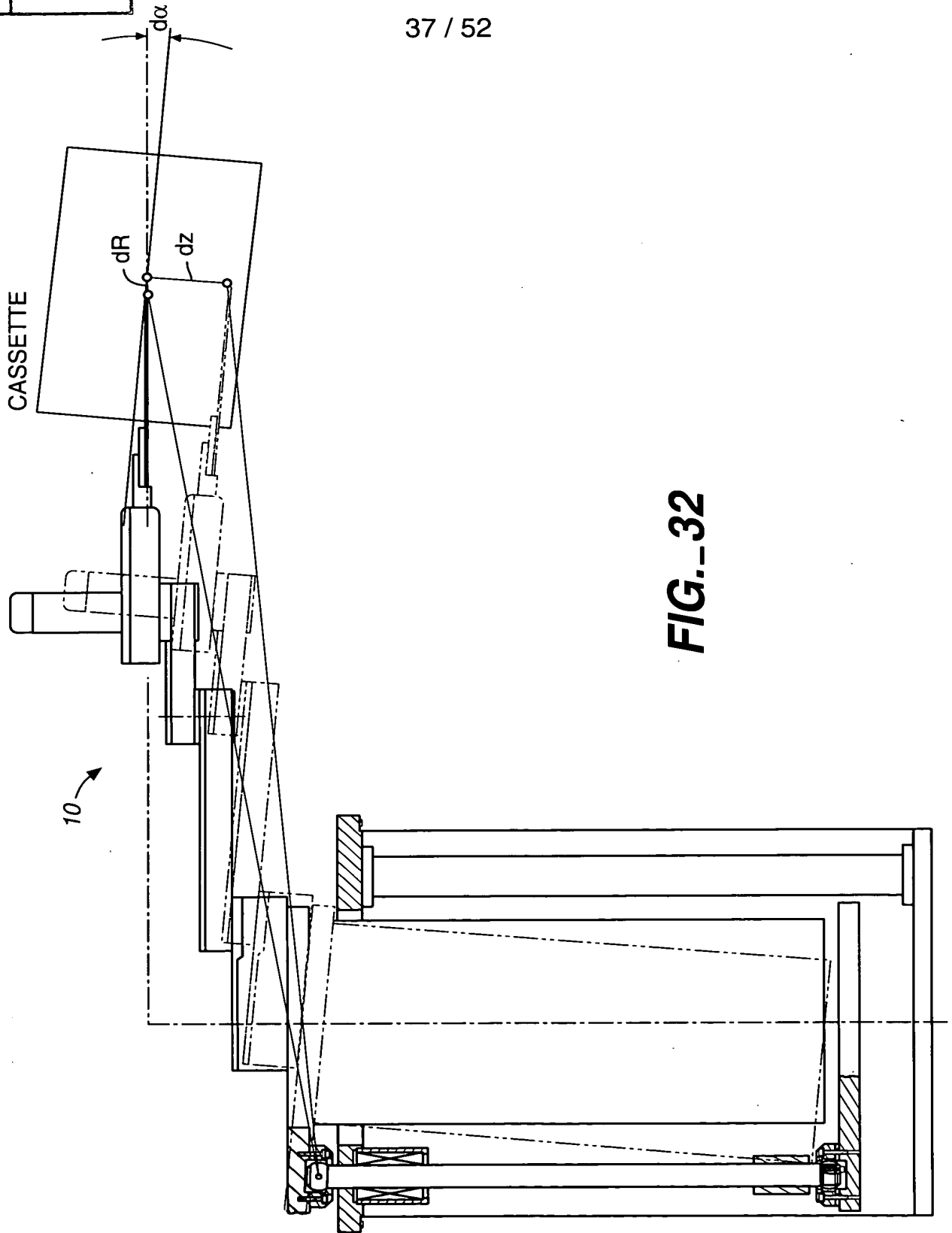
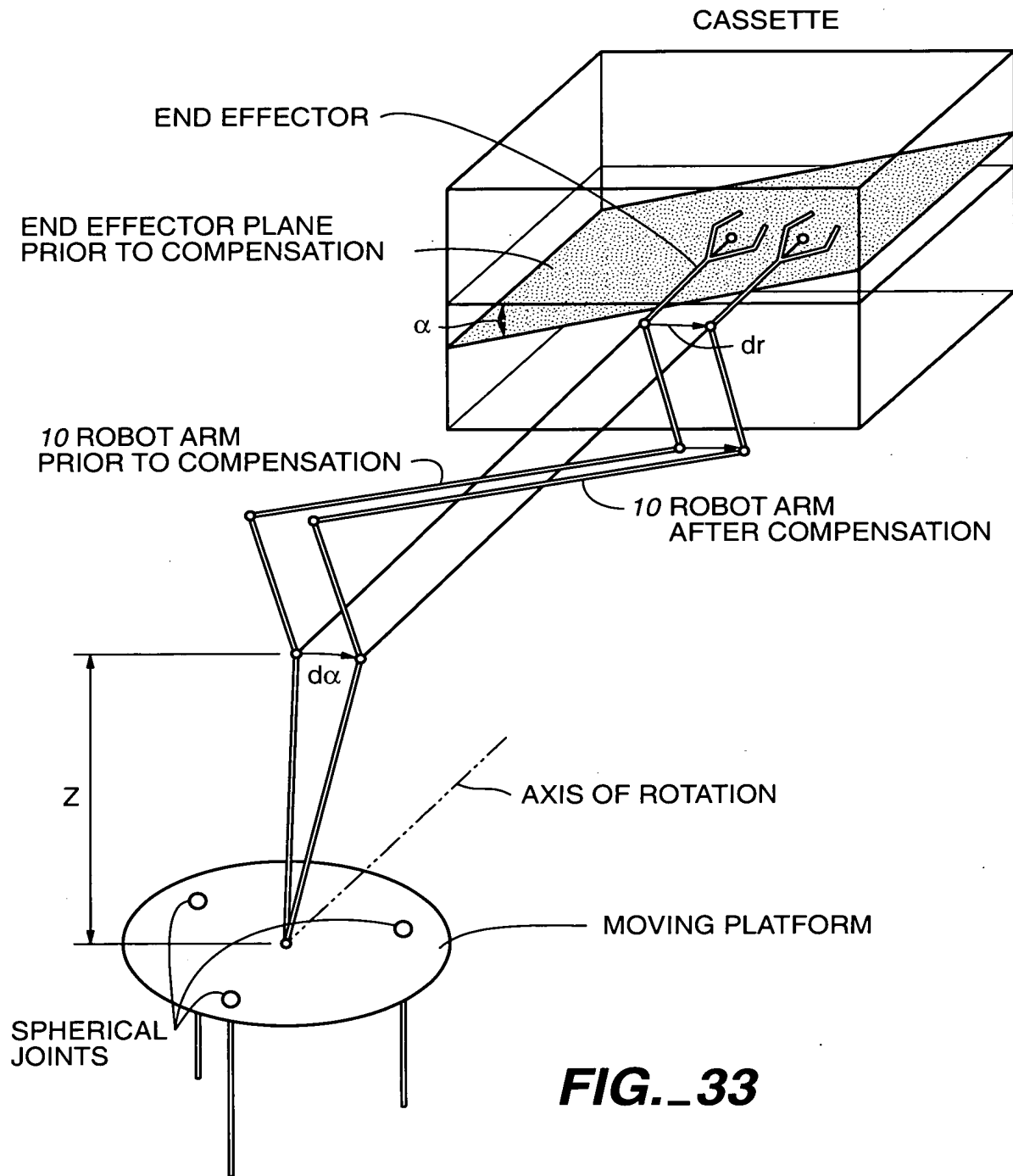
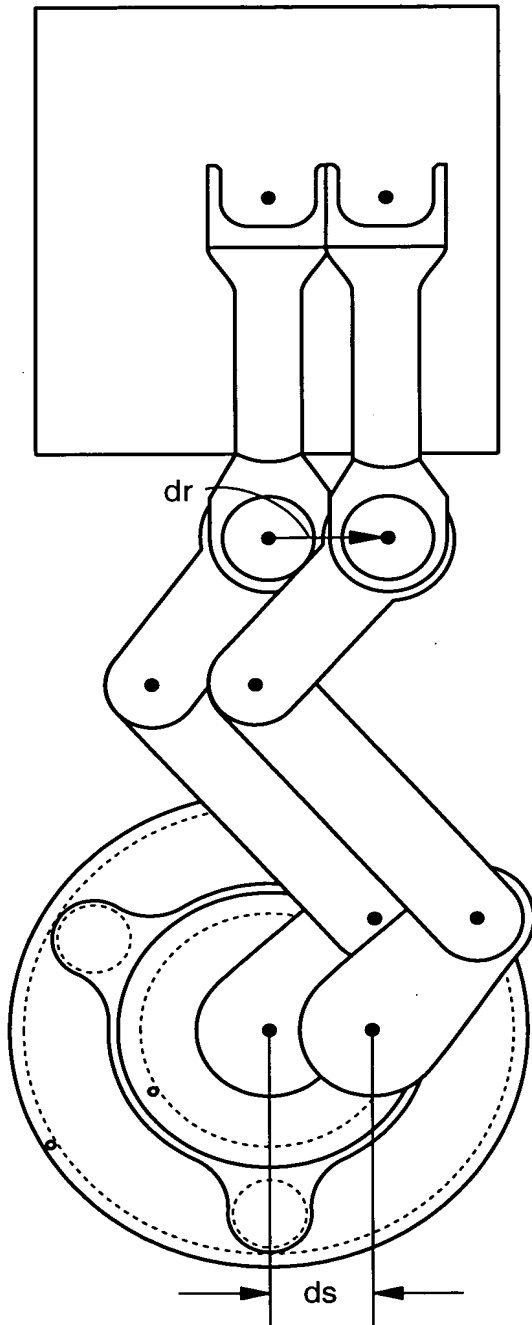
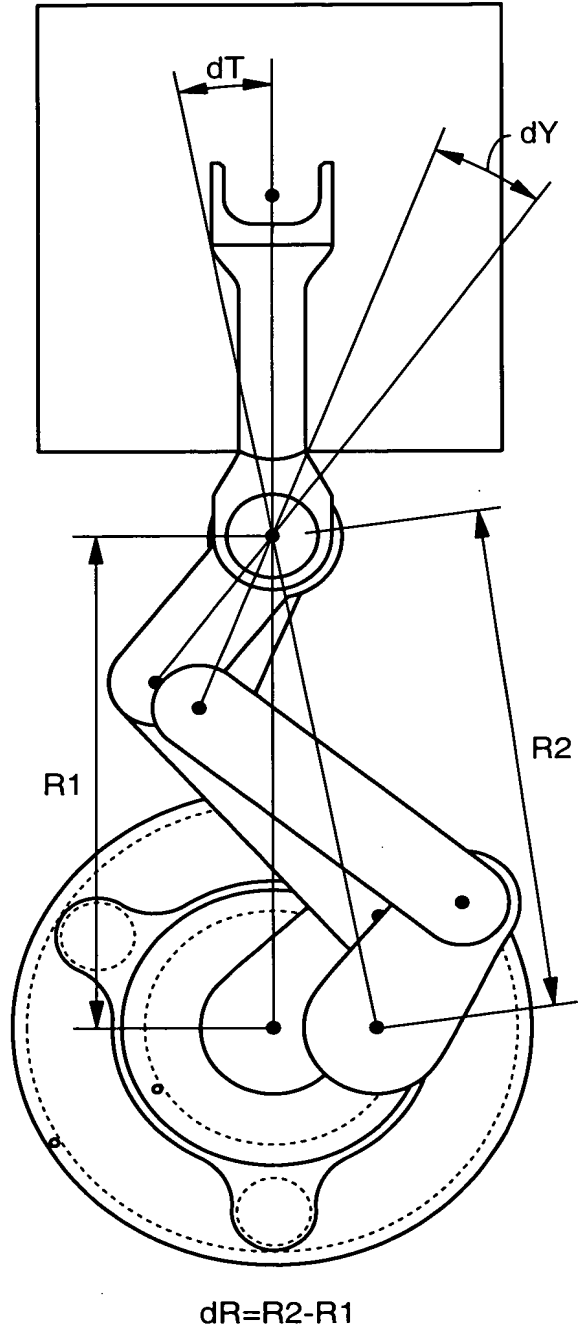


FIG.-32

APPROVED	O.G. FIG.
BY	CLASS
DATE	SUB

**FIG. 33**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

**FIG. 34A****FIG. 34B**

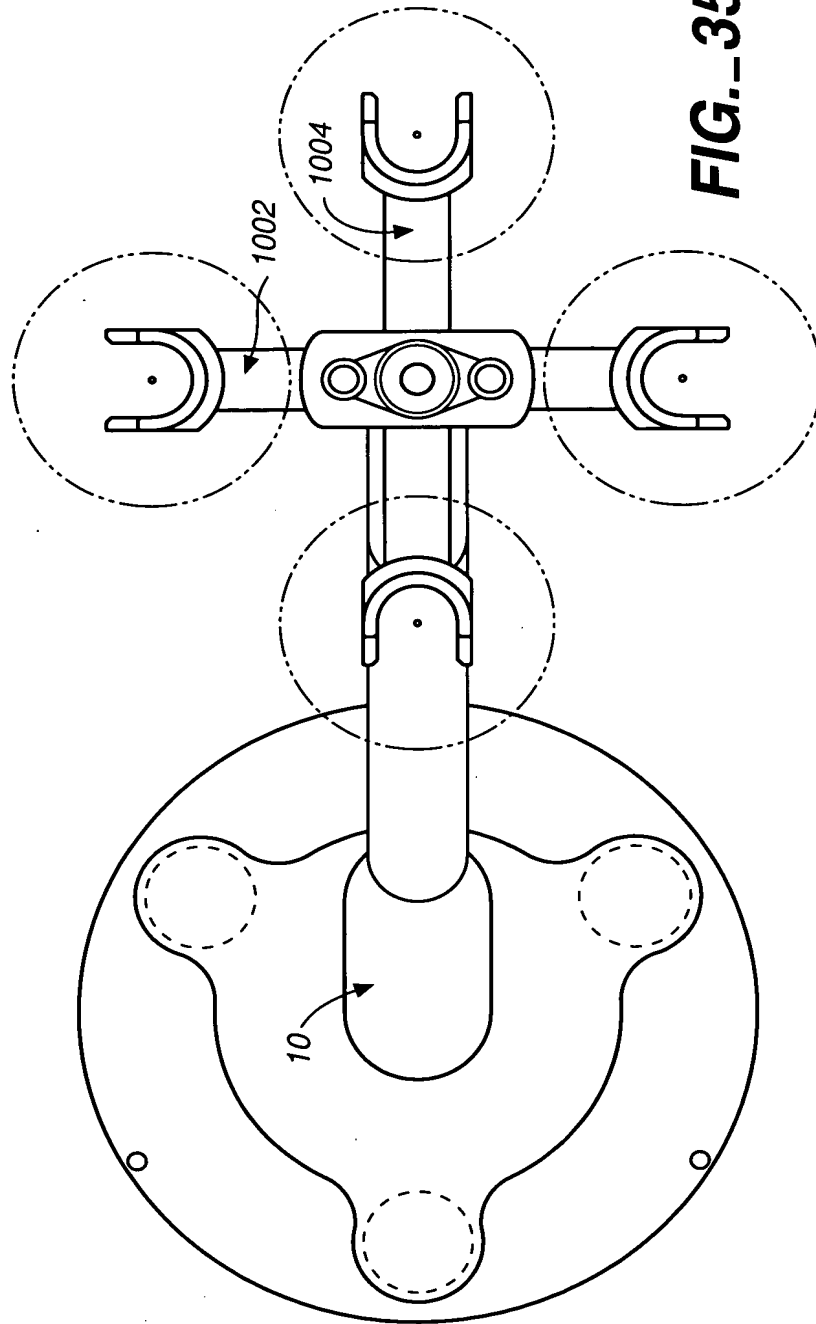


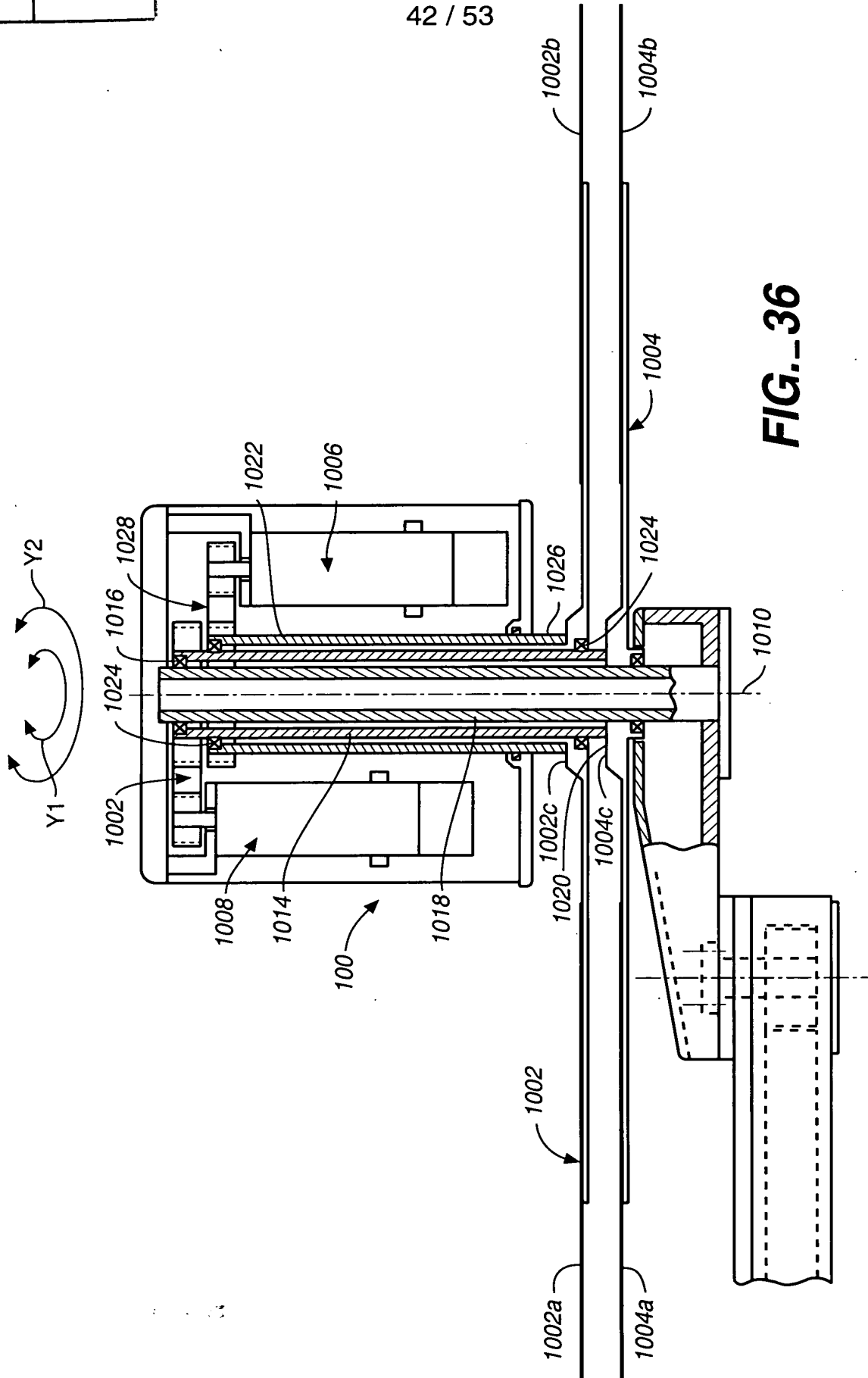


010063-061

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

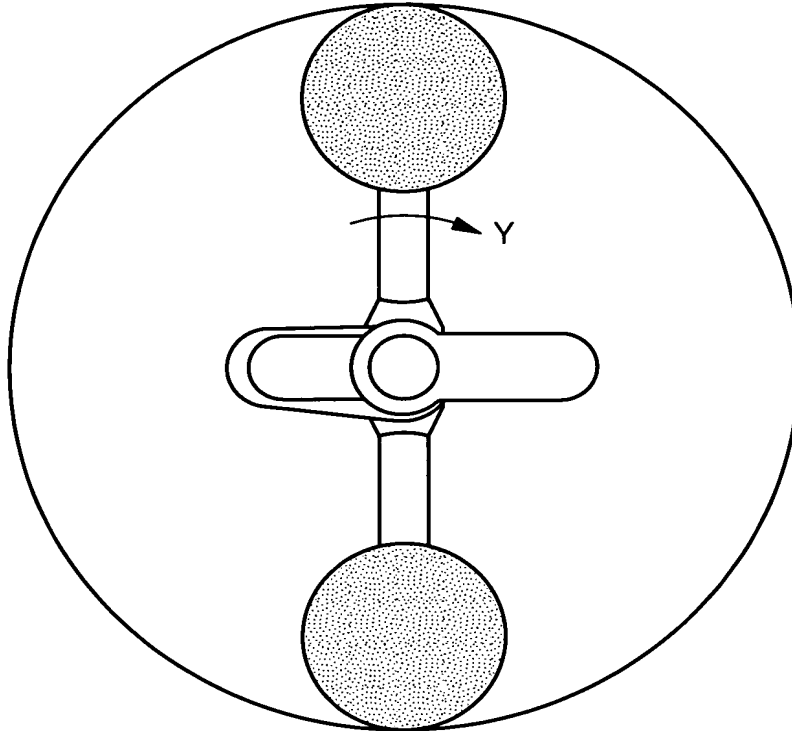
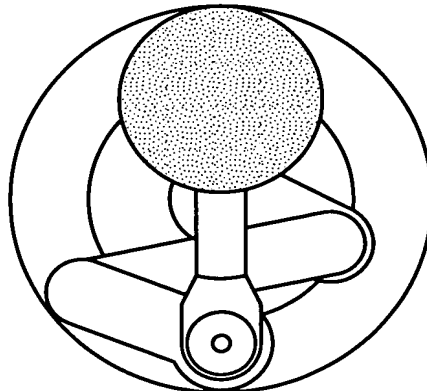
41 / 52

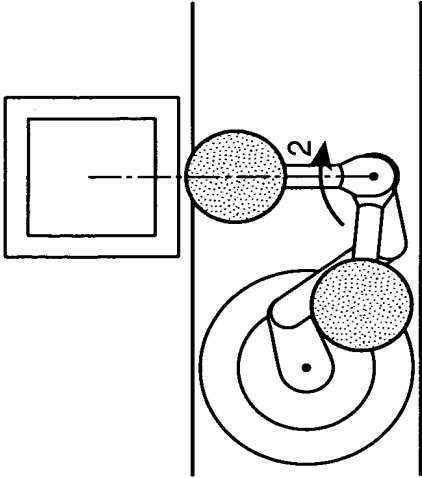




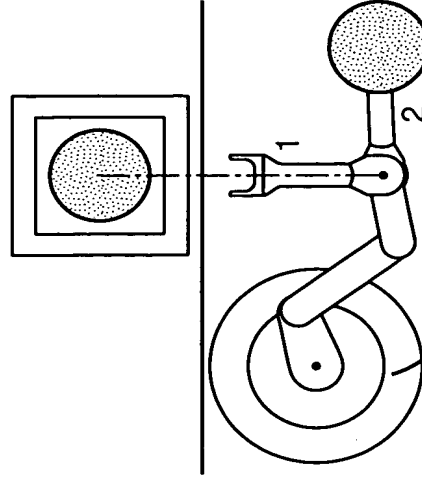
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

43 / 53

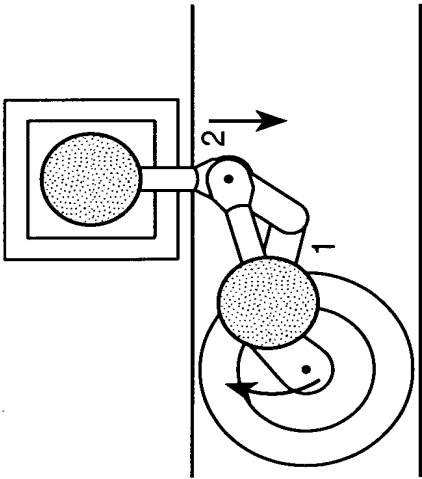
**FIG. 37****FIG. 38**



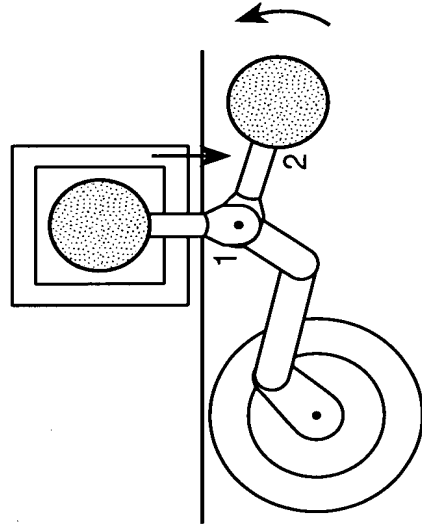
**FIG. 39C**



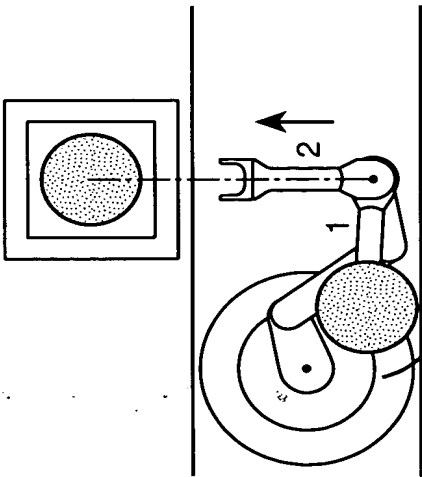
**FIG. 39F**



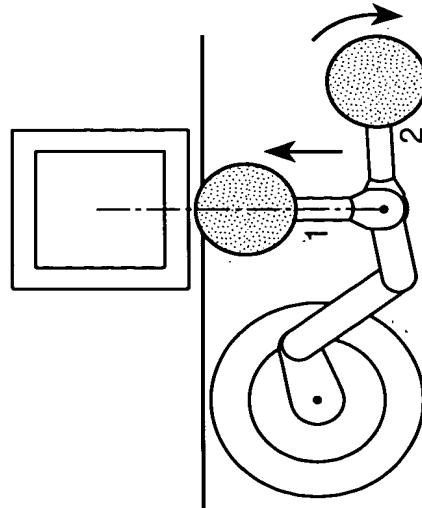
**FIG. 39B**



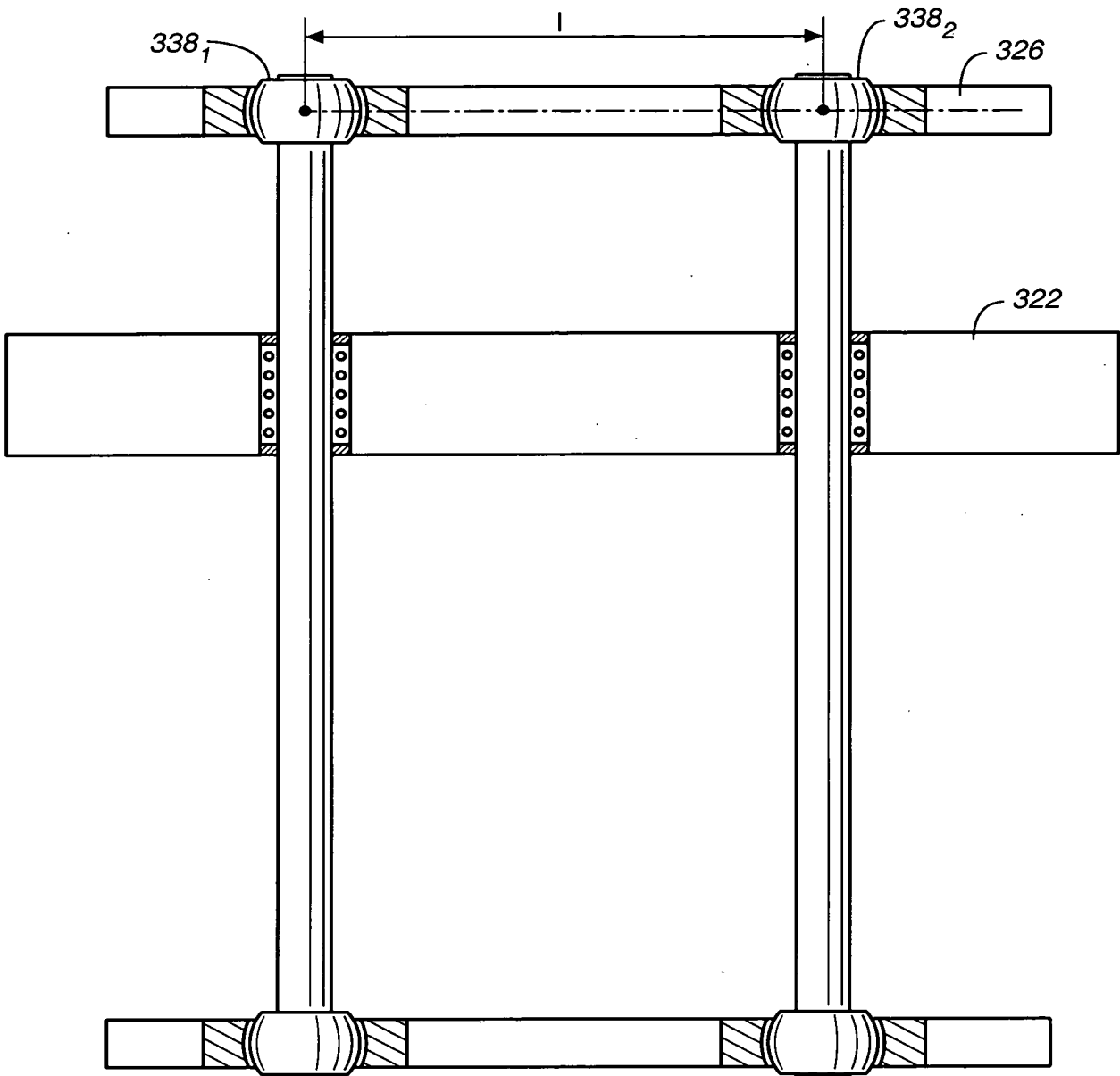
**FIG. 39E**



**FIG. 39A**

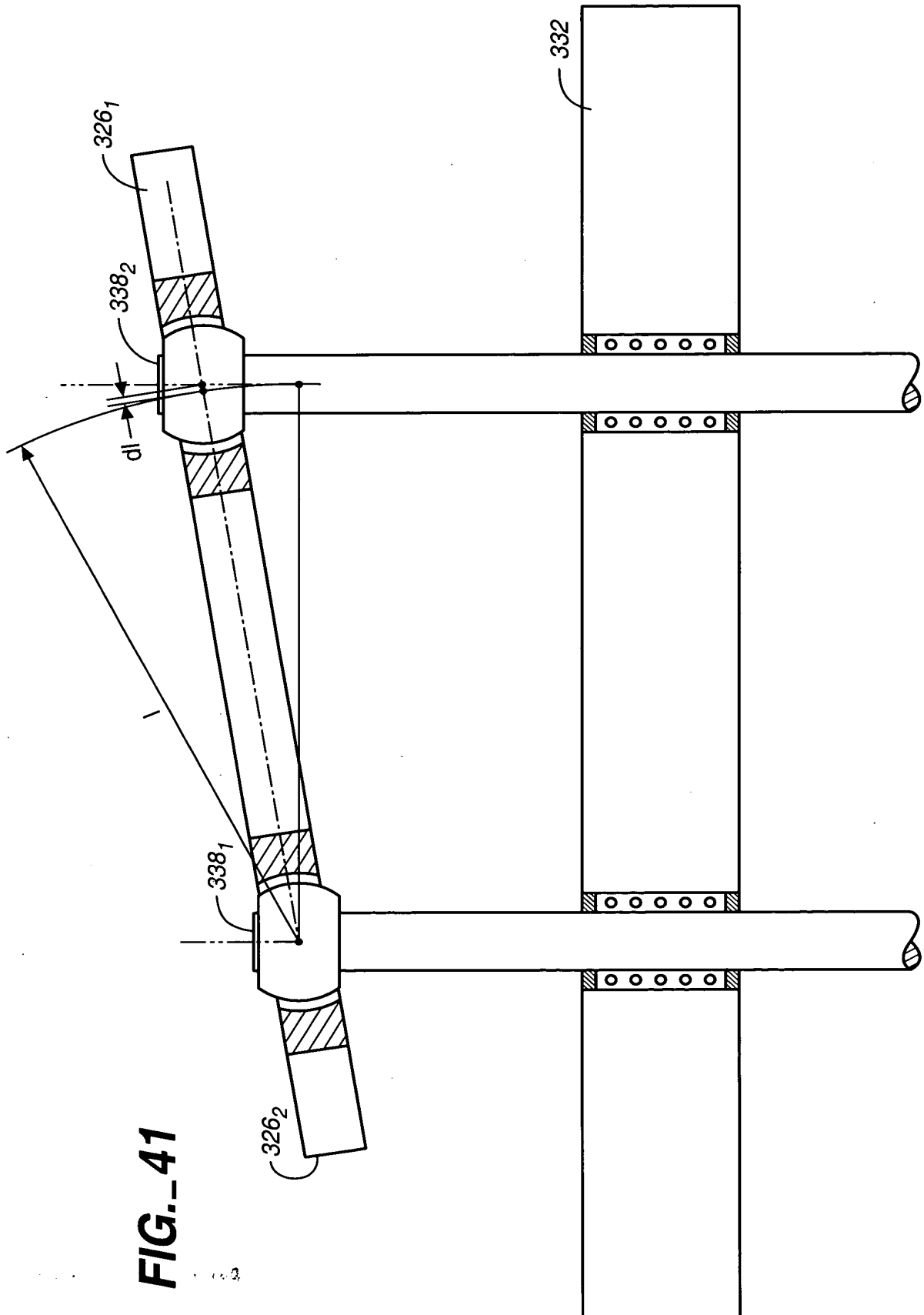


**FIG. 39D**



**FIG. 40**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

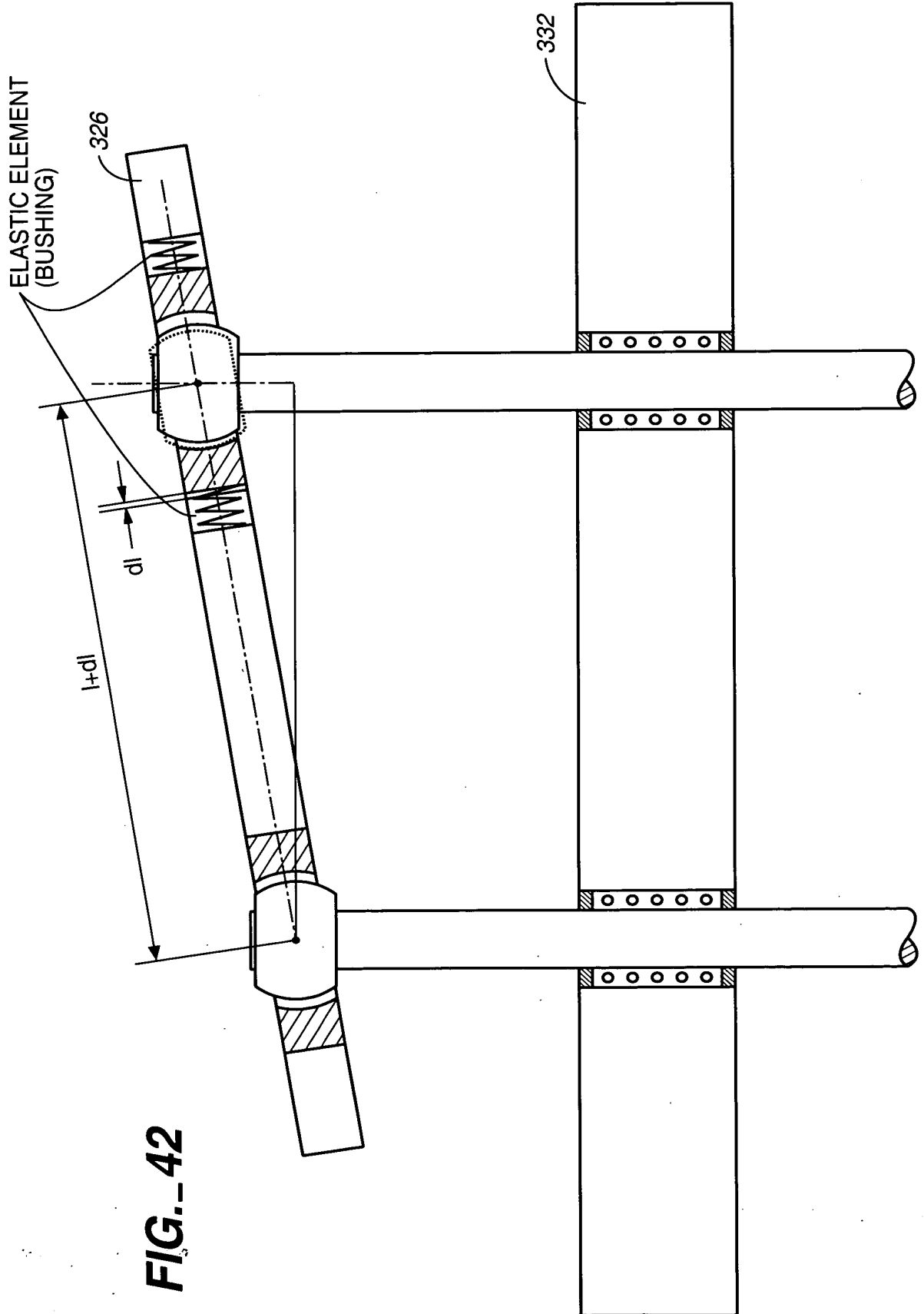
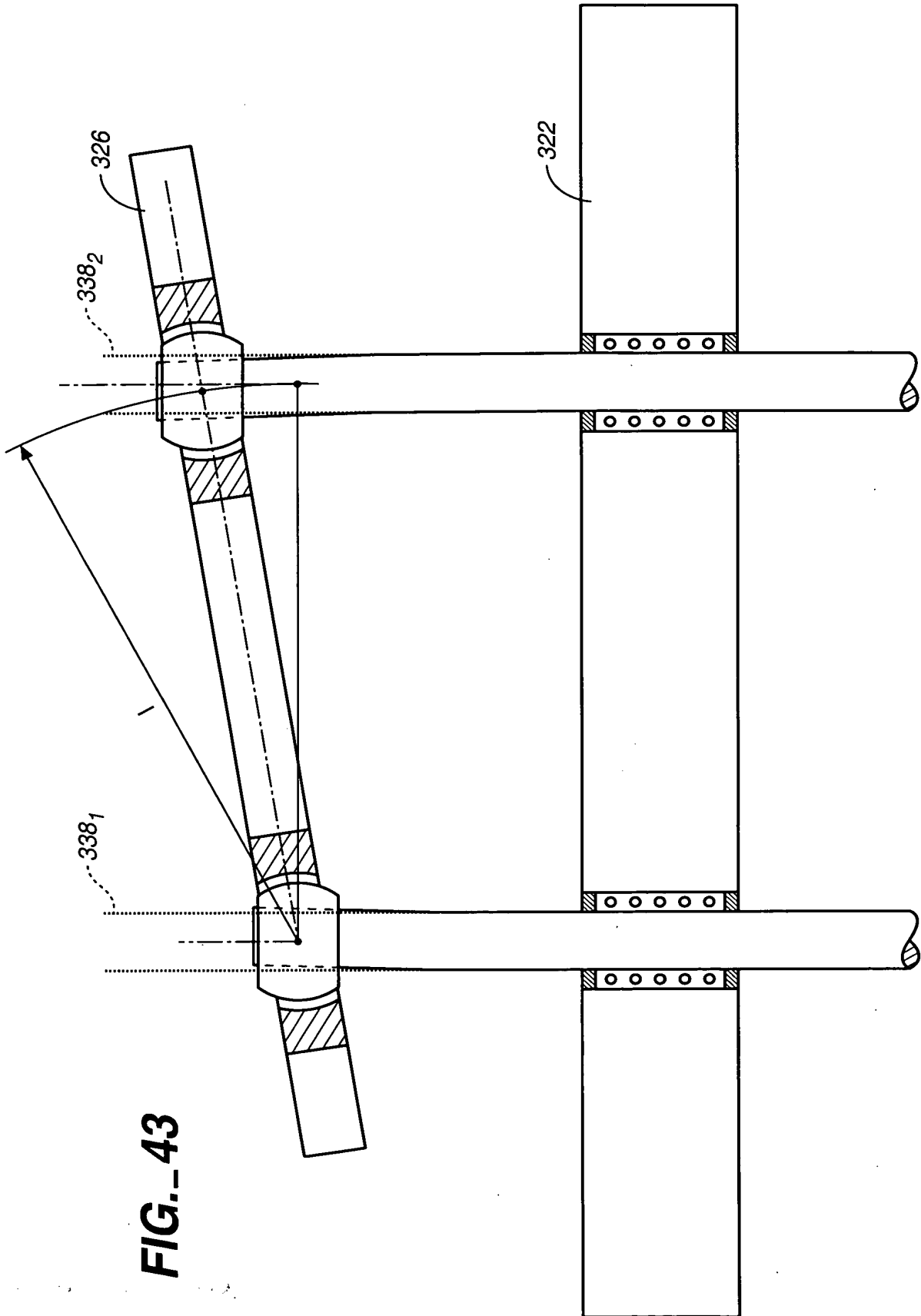


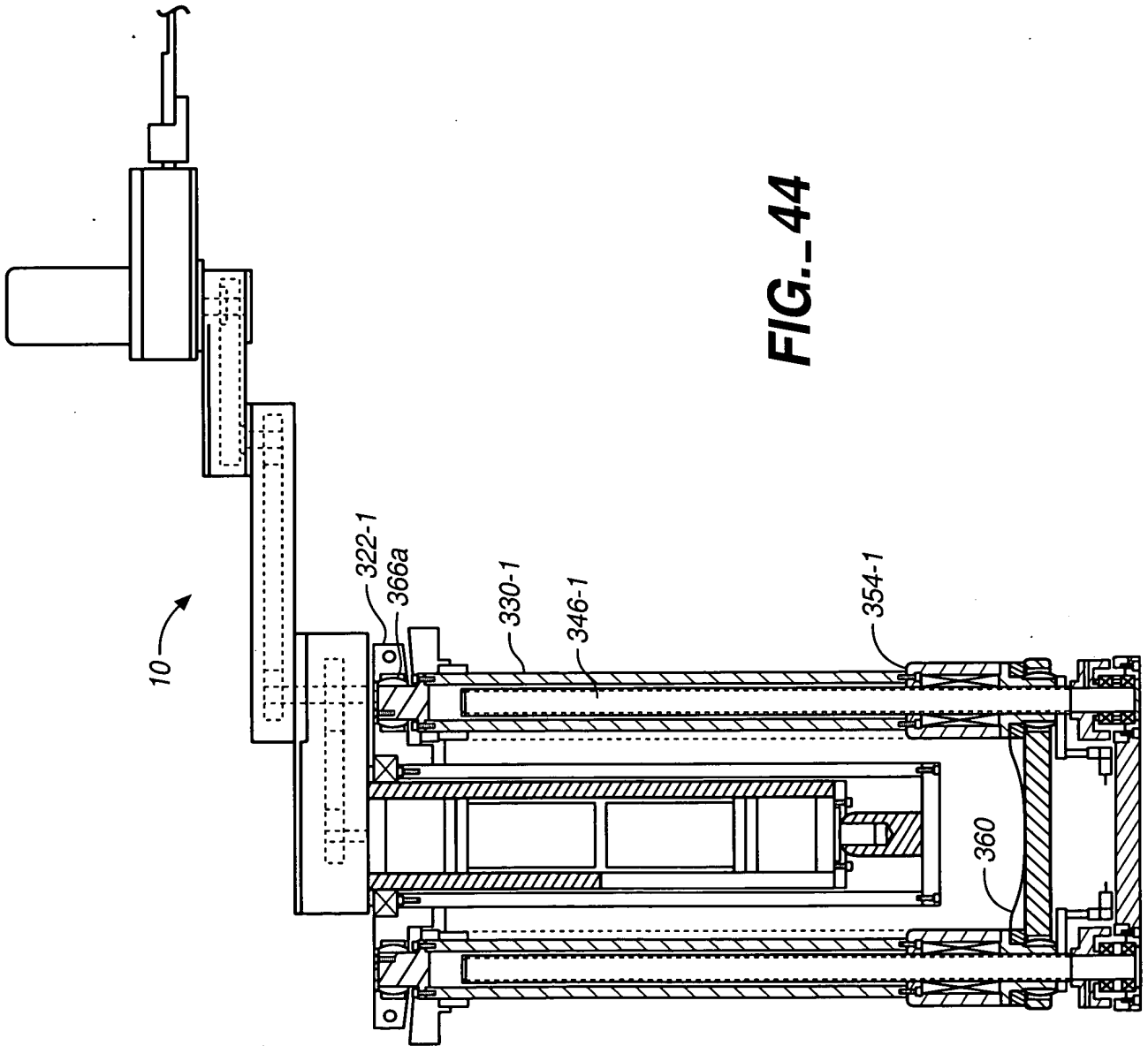
FIG. 42

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		





APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

[illegible]

**FIG.\_45**

344-3

APPROVED	010063-061	
BY	O.G. FIG.	
DRAFTSMAN	CLASS	SUBCLASS

51 / 53

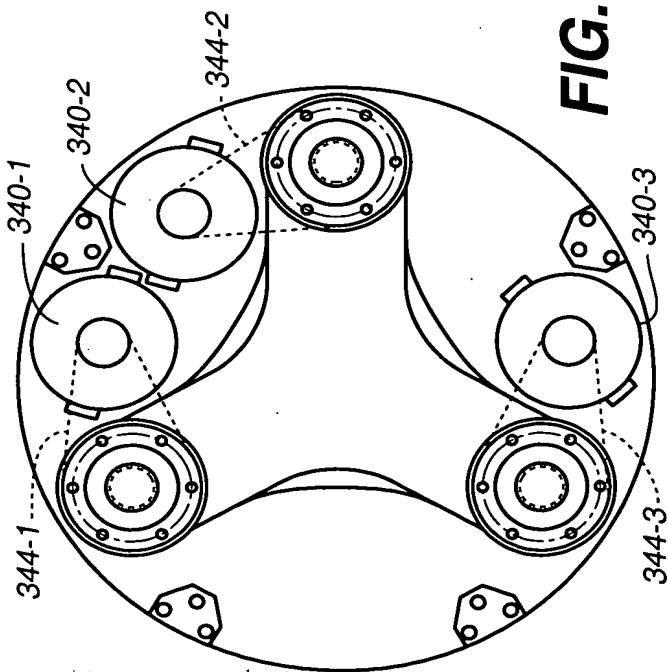


FIG. 46

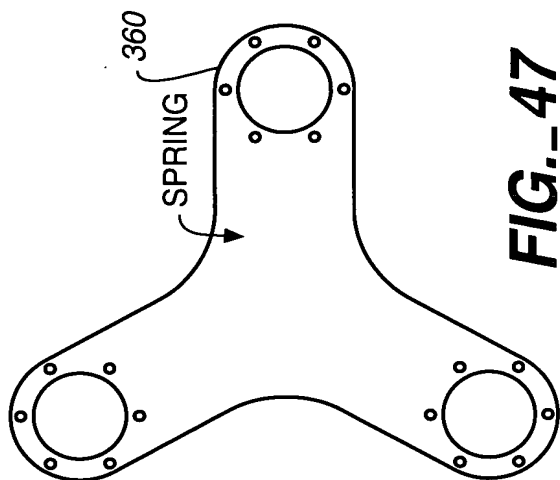


FIG. 47

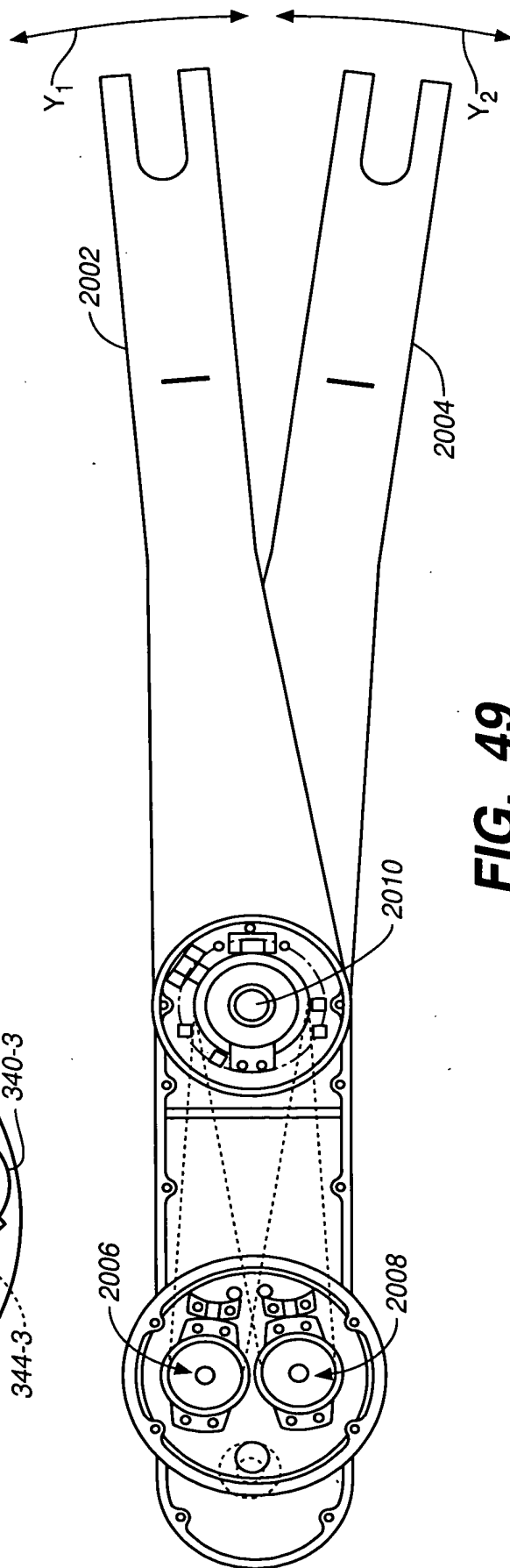
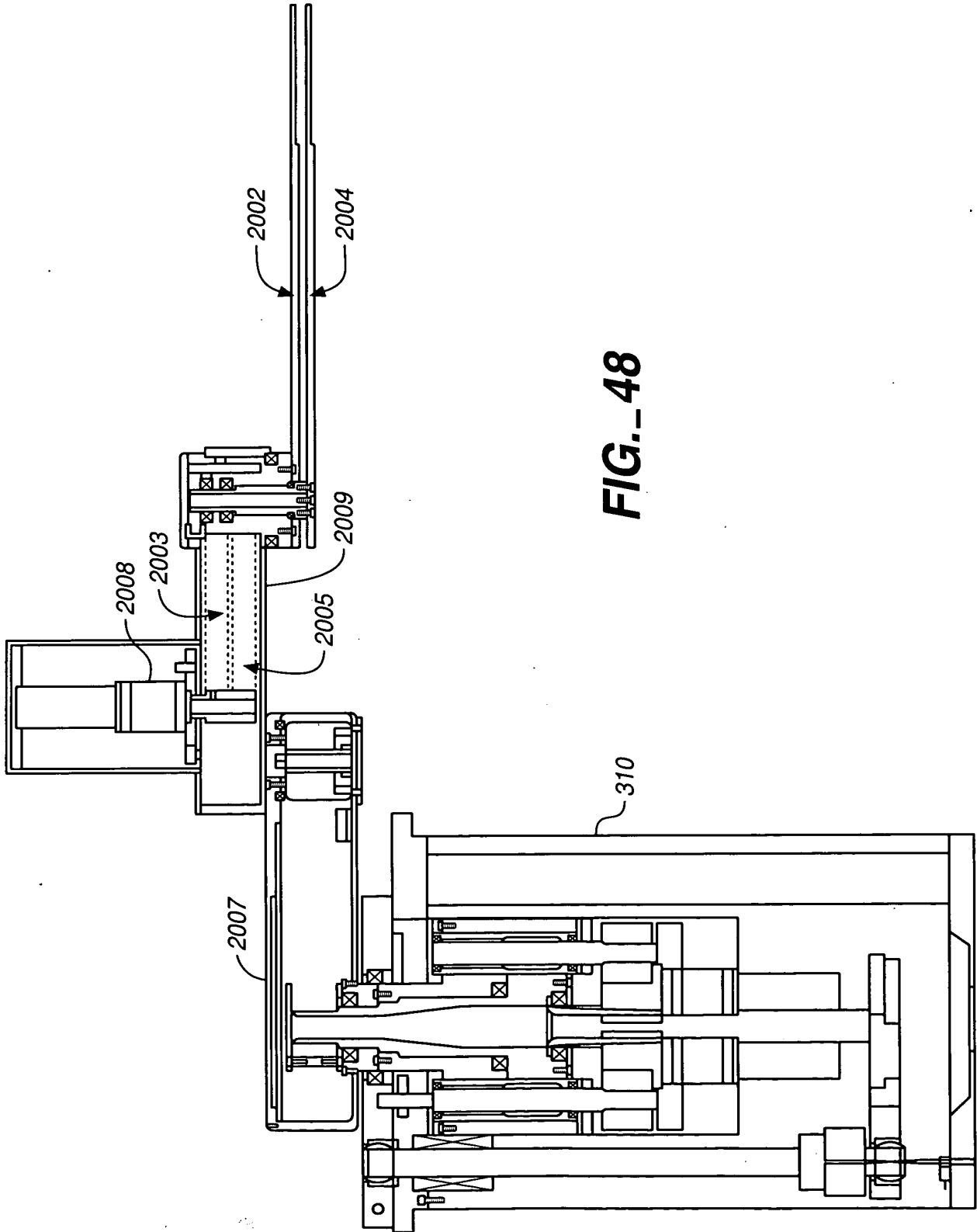


FIG. 49

010063-061

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

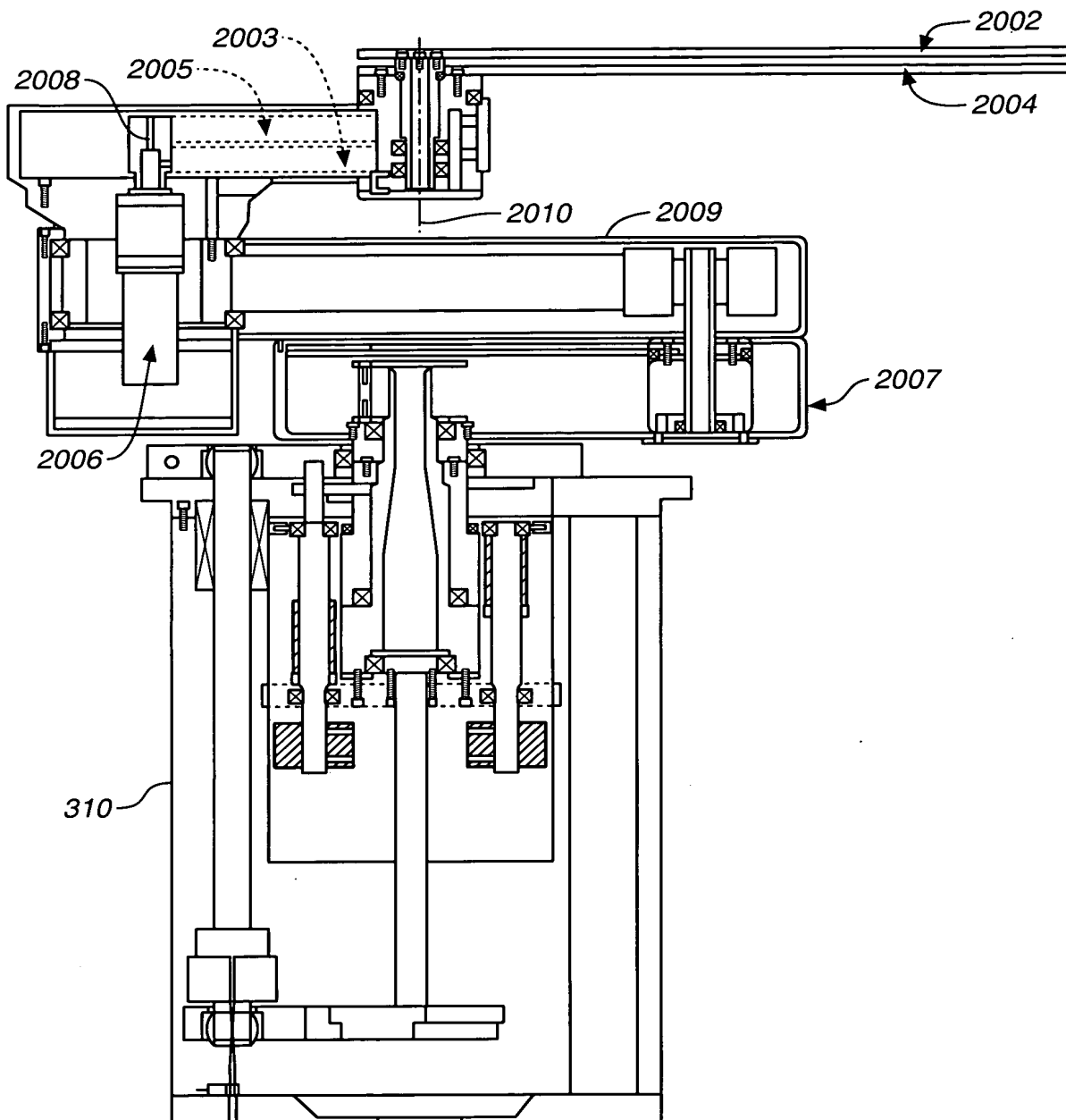
52 / 53



09/124,110

010063-061		
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

53 / 53



**FIG. 50**